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R.L. Mumme

1983

Hastings Reservation

Melanerpes formicivorous

1983 R.L. Mumme

(1)

Melanerpes formicivorus
SNAKE EXPERIMENTS

Plaque

3 June Start 1035: Gopher snake tied to branch about 1 meter below nest hole

Nest stage -- ⁶eggs, ~ 8 days

Time to discovery 26:50 minutes

Found ~~by~~ by ♂521. Let run 10 min after discovery

	<u>Intensity</u>	<u>Persistence</u>	* % of 10 min intervals within 5 meters
♂521	5	100%	
♀494	3	30%	
♀496	3	30%	
♂721	0	0	Not seen
♂723	0	0	Not seen

♂521 dove, swooped, + struck the snake unabated throughout the 10 min. ♀♀ perched near the hole + karritted, but never dove on the snake.

0 -- No response

1 -- Vocalizations, no approach within 5 m

2 -- " approach within 5 m

3 -- " " 1 m

4 -- Brief contact, ~~unabated~~ < 5 times

5 -- extensive contact ≥ 5 times

M. formicivorus
SNAKE EXPERIMENTS

Road 3

3 June Start 1315 : Gopher snake tied to branch opposite + behind nest branch, ~ 1 meter distant

Nest stage : 2 Nestlings, ~ 15 days old.

Time to discovery : 8:54, ♂654 finds snake.
Let run 5 min only (snake looked like it was in trouble)

	<u>Intensity</u>	<u>Persistence</u>	
♀265	0	0	Not seen
♂654	4	100%	
♀710	4	80%	
♂792	0	0	Not seen
♀794	0	0	Not seen

♂654 made 4 contact passes at snake,
♀710 came in 7 min later, made 2 passes. No
sign of the other adults.

M. formicivorus
SNAKE EXPERIMENTS

1500

3 June Start 1415: Gopher snake tied to ~~branch~~
nest branch, above & slightly below hole,
~ .75 m away from nest hole. (Snake
very inert, wiped out).

Nest stage: 3 eggs, ~ 8 days old

Time to discovery: ~~17:55~~ 17:55, ♀601

entered hole showing no interest in snake

31:45 ♂297 replaces ♀601 no interest. ♂297 leaves 45

56:20, ? enters, obviously saw snake, no response.

	<u>Intensity</u>	<u>Persistence</u>	
♂297	0	6	
♂622	0	0	Not seen
♀601	0	0	
♀818	0	0	Not seen

Melanerpes formicivorusChongo

6 Jan Watching from Buckeye, ~~12~~ 1230-1300, I see the ♂ NB and ♀ dark left eye in the granary, but nobody else. Juv 801, not seen since the day he fledged, must certainly be gone. The 2 birds flew across Mudro-e Canyon toward Buckeye at 1300.

17 Jan ** GROUP UPDATE **
 1982
 J801 disappeared 20 July \pm 1 Month.

Last seen fledging by Molly 20 June. Probably gone when I watched there 16 Aug.

8 March While wandering around Buckeye looking for Buckeye birds, I pick up a ♂ NB and a ♀ NB with a dark left eye in the flat below (north) of the 79 Buckeye nest hole. Certainly these are the Chongo birds.

9 May Surprise, surprise! After flushing a bird out of the 82 nest hole in the granary, at 1630 I climb up and find 7 eggs (!) including 1 runt (!!), leading me to suspect strongly that there is more than "dark left eye" here. Eggs quite fresh, ~1 day.

De-ise reports still ♀♀ 753 + 755 here.

22 May Nest check, 1515. Of the 7 eggs, (1 a runt, 1 used in the thermocouple problem,) 5 had a chance to hatch. I found 2 nestlings ~1 day, 2 un-hatched + apparently infertile eggs, and 1 egg with still a chance of hatching. This clutch hatched late, because incubation was apparently delayed for a day or two here (see Walter's notes).
June Walter reports failure, dead nestling in hole, absence of acorns.

M. formicivorusChongo29 June

** GROUP UPDATE

① ♀ NB dark left eye disappeared 8 April 1983 ± 1 month
Last seen at Chongo 8 March, certainly gone by
9 May when clutch of 7 eggs found, but probably
gone before that.

② ♀ 753 + ♀ 7505 moved here as 1st-year birds,
20 April 1983 ± 2 weeks -- Last seen at School Hill
by Philip 6 April, first at Chongo 10 May, but
probably there by 20 April.

Chongo ABANDONED fall 83

Melanerpes formicivorusBuckeyeHastings Reservation

BRK/LB1-Red

6 Jan

Walked up here, 0930. As I walk up, I see ♀666 chase a ♀NB mildly from the granary. The ♀NB flew to a tree just 10 m from the granary, but ♀666 did not pursue. However, 15 m later the ♀NB returned to the granary whereupon ♀666 chased her again. This provides some insight into why a new ♀ has not immigrated here. Looks like we could have inbreeding. Also a ♂m/ was nearby during the above chases, and he showed no response.

1130 Whoa in the granary together are ♀666, ♀664 ^{wht/DGrn-LGreen} and a ♀NB! Maybe there is a new ♀! ♀666 took a brief peck and urk at the ♀NB, but then they sat peacefully together for a min before the 2 banded ♀♀ flew off, and ♀NB followed. At worst, it looked like a domestic squabble.

Otherwise, very slow here. ♂252 ^{DBlue/Yellow-LBlue} confirmed, but that's all. Will have to try again later, and see if this ♀ is indeed in the group.

1200, ♀NB is back, alone in the granary, looking very much at home.

17 Jan

* * GROUP UPDATE * *

① ♀483 disappeared ¹⁹⁸² 10 May \pm 1 week

A ♀ looking out of the nest 1 May was probably her. Nest had failed by 24 May, and ♀483 never seen after. Last confirmed sighting was 16 Oct 1981

② ♀NB (876) moved here 20 Nov 1982 \pm 1 month

Definitely not present 5 Oct, First seen here 6 Jan 83

Melanerpes formicivorusBeckeye

20 Feb Watching from blind, 0950: Beautiful, warm, sunny day. 1150, Very slow, only ♂252 and ♀~~666~~ 666 seen. Those two fairly conspicuous, even though not a trace of any other birds.

8 March Perhaps foolishly, I try here again, also 0950 o-a beautiful sunny day. 1120, Finally, ♂252 ^{DBlue/Yel-LBln} and ♀1876 Nobands put in a brief appearance. So there is a new UB ♀ at Beckeye! She and ♂252 perched together in the granary quite happily albeit ~ 3 meters apart. I'm starting to wonder about ♂234 and the other ♂ helpers, ♂663 + ♂665. ♂665 used to be about the most conspicuous bird here.

1240, After wandering around to the NE (past the 79 nest hole) on the ridge beyond the 79 hole I finally pick up ♀664 ^{White / DBln-LBln} _{LBln-DBln / M} and ♂663 ^{M / DBln-BPnk(N)} ♀666 ^{Black / LBln-Rd} _{Blk-Rd / M}. So they are still around.

Are they still group members, or have they been forced to the periphery by the new ♀ and ♂252 (I suspect the former). Also, what about ♂234 and ♂665? They may be gone, but more watching clearly needed here.

13 March One last time, 1700 till dark. 1745, doing better! At one point ♀NB, ♂252 ♀666, ♂663 all in the granary! ♀666, ♂663 and ♀NB over-perched together, with no sign of unrest. I'm now 95% sure that ♂234 and ♂665 have indeed disappeared. 1800, Another bout of activity ~~♀664~~ ♀664 plus the 4 above. I'm sure that this is a complete census.

1983

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3

Melanerpes formicivorusBuckeye5 April

Group update **

① ♂234 + ♂665 disappeared 20 Nov 1982 ± 1 month

Last seen 5 Oct, both missing 6 Jan.

18 April

Watching here, 1545, for signs of mate guarding by ♂252 and (hopefully) ♂663.

1730, pretty good watch. ♂252, ♂663, ♀664, ♀NB all seen well. Only ♀666, seen recently at the Blomone Power struggle) is missing. Certainly no evidence of mate guarding. ♀NB spent long periods alone and once moved away from ♂252, who failed to follow. ♂252 also spent long periods alone, and once moved away from ♀NB.

The only worrisome thing ~~the~~ is that I never saw the bird in the granary: When they were around, they were always in the tops of the Valley Oak to the south of the granary. Several times I saw ♀NB + ♂252 fly off to the south from that tree, and I saw ♀NB + ♂252 together only briefly. Could they have a nest already? I will go look around over there.

3 June

After Denise reports birds in the low granary hole, I open it up + find 5 eggs including one runt, ~8 days old. This is probably Buckeye's second nest. See Susan's + Denise's notes

29 June

** GROUP UPDATE **

① ♂665 returned ~ 1 May 1983 -- first seen by Susan on 5 May

M. formicivorusBuckeye

31 July Watching here, 1640: 1740, Nothing. I also check upon all the holes (just in case) but nothing there, either.

7 Aug Finally, a good watchup here 0710 - 0840. Here are the highlights: ① ♂252, ♀N13, ♀664 + ♂665 all seen very well ② The bad news is that ♂252 has lost his Left (metal banded) leg, so he is now a look-alike of ♂58 at Wgate. Too bad, but he seemed to be getting along OK without it. However, that may explain why Buckeye's two nests (or at least one) failed. ③ a UR Juvie was hanging around getting chased a bit, but he clearly did not belong to Buckeye. ④ 0840, Seen the above 4 birds several times now, + nobody else. All 4 together in the granary at 0830: ♀666 (not seen since March) must certainly be gone, ♂663 probably so.

Buckeye not abandoned fall '83. By spring 84, contained only ♂252 and ♂665

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M. formicivorus

Budeye NEST RECORD

3 June Recopied old 81 nest hole (low hole in gra-a-y), 0830:
5 eggs, one a runt, ~ 8 days old

1 July Here to band nestlings 1130, I find nest completely empty

Melanerpes formicivorusPlaqueHastings Reservation17 Jan

** GROUP UPDATE **

♂660 moved to Pipeline 10 Sept 1982 ± 1 monthLast seen at Plaque 16 Aug, missing 5 Oct, First seen at Pipeline 27 Oct.♀724 disappeared ~ 10 Sept 1982 ± 1 monthLast seen at Plaque 16 Aug, gone by 5 Oct.19 Feb

Watching here, 1430 - 1600: ♂521, ♀494, ♀496, ♂721, ♂723 all seen well and repeatedly, but conspicuously absent was ♂473! No sign of him in the $1\frac{1}{2}$ hours. Not totally convinced he's gone, but it doesn't look good.

3/March

First spring granary census, and first watch to see of any sign of nesting. ~~Plaque~~ Doesn't look like nesting is imminent. ♂521 + ♀494 acted quite independent of each other (although that may not mean anything now that ♂473 is gone) and no evidence of interest in any holes (although the birds spent about 20 min around MacRoberts. All 5 seen well plus two interesting intruders: ♀787

Red-yellow/M
Yel-wht/Red-wht 1800 ad ♀710 Dbrn/M of Road 3.

4 April

Routine granary census, on back. All 5 birds seen. Also, Plaque has a new nest hole under construction, in the 2^o granary facing the creek. A nice hole. 1500, I climb up and peep in, no eggs, but starting to look pretty good. Very thick wood, unfortunately, but the hole doesn't look too deep. I'll have to open it soon.

31 March 1983. Plaque granary watch

1350 ♀496 ♀494 1° | ♂521 2°
55 ♀494 1° | ♂521 2° | ♂723 3°
1400 ♂723 ws ♂521 ♀494 1° |
05 ♂723 ws ♀494 1° | ♂521 2°
16 ♂723 ♀494 ♂521 1° |
15 " " " " |
20 ♀494 1°
25 ♂521 1°
30 ♂521 wh 1° |
35 ♂521 1° |
40 " 1° |
45 " 1° |
50 nobody
55 "
1500 ♀494 1°
05 "
10 ♀494 ♂723 ♂721 1° | ♀496 2°
15 ♂723 ♂721 1° | ♀494 ♀496 2°
20 ♂723 ♂721 ♀494 ♀496 1° |
25 ♂721 ♂723 1° | ♂521 2° ♀496 2°
30 " " " " | " " "
35 " " " " | " " "
40 ♂721 ♂723 ♂521 1° |
45 " " " ♀496 1° |
50 " " (♂521 ws) " 1°

defr-st

1404 ♂521 Titmouse 1
1415 ♀494 ♀287 (1800!) 1
1505 ? ♀710 (Rd3) 2

4 April 1983

1130 ♀494 1° ♀496 2°
35 ♀496 2°
40 nobody
45 nobody
50 "
55 ♂521 2°
1200 ♀494 wh ♂521 1° |
05 ♀494 1°
10 nobody
15 ♂721 ♂521 ♀494 1°
20 ♂721 ♂723 ♀494 wh 1° |
25 ♂723 wh | ♂721 ♀494 ♂521 1° ♀496
30 ♂723 ♀496 wh 1° |
35 ♀496 ♂721 2°
40 ♀496 ♂721 2°
45 ♀496 2° | ♂521 2° |
50 ♂521 ws 1° |
55 ♀494 ♀496 2° | ♂521 | ♂723 ws 1°
1300 all 5 1° (♀496 + ♂723 ws)
05 ♀496 ♂723 wh 1° | ♂721 1°
10 nobody
15 "
20 "
25 "
30

dominance

♂723 77 ♂721

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2

Melanerpes formicivorusPlaque5 April

* * GROUP UPDATE *

① ♂473 disappears 4 Jan ± 1 monthLast seen by Alan 17 Nov, missing 19 Feb.

1700, I opened the new hole, and found that it has a long way to go yet. Not very deep, very rough, ragged bottom.

6 April

Routine gra-ary census, 0820-1020, save for a interesting intruder (♀815 of CV2). Only ♂521, ♀494 ♀496, ♂723 seen.

Also, birds are still very much committed to the new hole. Never saw anybody fly up toward Adobe or Buckeye Hills, and saw several trips to the new hole. Only suspicious thing is that the birds continue to make a lot of trips to the Big Blue Oak + MacRoberts. Will have to make sure nothing is going on over there.

7 April

Checked the hole here, 1230, found it shaping up, but still not ready for eggs yet.

10 April

Checked the hole, 0830. 2 birds flushed as I climbed up to the hole, but the bottom is still pretty rough.

12 April

Bad news, we blew it again! I had Philip watch the hole here from 0610-0845, and he recorded a pretty steady stream of birds in + out of the new hole. I climb up and find 3 eggs marked ①-③! 11 April (and maybe 10 April) were undoubtedly the critical days. Oh well, we live + learn. I'm sure both ♀♀ laid today. Tossing may have occurred yesterday.

6 April 1983

Plaque granary census

cc

0820 ♂521 ♀494 ♀496 10
 25 ♀494 2° | ♀496 ♂521 1°
 30 ♂521 ♀494 ♀496 1°
 35 ♀494 10
 40 ♀494 ♂521 1°
 45 ♀494 10 ♂521 1°
 50 ♂521 ws ♀494 1°
 55 ♂521 1° | ♀494 2°
 0900 ♀496 ws 1° | ♀494 ♂521 1°
 05 ♀496 ♂521 1°
 10 ♀496 10
 15 ♀496 1°
 20 ♀496 10
 25 ♀496 ♂521 1°
 30 ♂521 1° | ♂723 2°
 35 ♂521 ♂723 ♀494 2°
 40 " " "
 45 ♂521 1° | ♀494 2°
 50 ♂521 ♀494 2°
 55 ♂521 2° | ♀494 1°
 1000 " " | "
 05 ♂521 2° | ♀494 ♀496 1°
 10 " " | " " "
 15 ♀494 | ♂723 ws | ♀496 2° | ♂521 1°
 20

defense

0825 ♀494, ♀496 ♀NB 1
 0830 ♂521 Passerine 1
 0905 ♂521 " 3
 1000 ♀494 ♀NB 2
 1010 ♀494 ♀496 ♀815 2
 (M / Lbrn-DBn
 DBn-Lbrn / Lbrn-DBn) CW 2

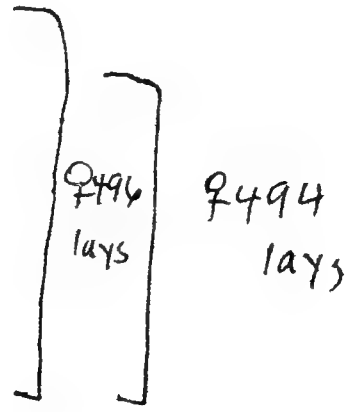
20 ♀494 ♀496 ♂521 1° | ♂723 2°

Melanerpes formicivorusPlaque

- 14 April Checked the hole ~~at 1415~~, 1415 (Walter found 5 eggs 13 April). 6 eggs. Is the clutch now complete?
- 15 April Checked the nest, 1630: Still 6 eggs: Probably all over here.
- 18 April Walter removes the 6 eggs from the nest here.
- 26 April I return from Berkeley today + Denise reports that while watching the Plaque nest hole today, she saw a ♀ fly out at 0628 (early!) carrying an egg. Unfortunately, we don't know who laid it or who threw it out. Unfortunate, but maybe we'll be lucky tomorrow. See Philip + Denise's notes. Philip checked the hole + found it empty sometime yesterday morning. See Philip + Denise's notes for details.
- 27 April Good watch at Plaque! Basically, both ♀♀ laid simultaneously between 0650 and 0720, 1 normal egg, one runt. I measured the eggs + I'm confident that the normal egg (27.2 x 20.3) was laid by ♀494 (see past-years egg dimensions) and the long narrow runt laid by ♀496 (21.2 x 14.8). ♀496 always lays long, skinny eggs, and never has laid an egg wider than 20 mm. Anyway, Philip + I watched more, ♀496 removed both eggs, the runt first at ~ 0850 ~~and~~ followed by the normal egg ~ 1020. See Philip's notes for exact details. I saw a bird fly out with the runt egg ~ 0950, whereupon it was carried to

27 April 1983 Plaque egg tossing watch

0545 start watch
0649 ♀496 enters
0652 ♀494 enters
0653 ♂521 looks in
0656 ♂521 enters
0700 ♂521 leaves
0711 ♂521 enters
0723 ♀ looks out, all 3 birds leave
0730 checked nest 2 eggs



① 27.2×20.3 (shape suggests ♀494)
② 21.2×14.8 (shape " ♀496)

Melanerpes formicivorusThrupp Plaque

(27 April) the main granary. This bird proved to be ♀496, and I saw her eat some of the egg for about 1-2 min before flying off.

Philip reports that ♀496 took the normal egg to the main granary, but wasn't sure what happened ~~was~~ after that

28 April Boring egg-laying watch at Plaque. A ♀ (♀496?) was in the hole when I arrived at 0615, and after she left at 0627, I climbed up to the hole & found a ♀496-shaped egg (25.4 x 18.4). Nobody returned to the hole before ~~0830~~ 0830, at which time Denise relieved me.

Is one ♀ (♀494) taking the day off? Could she have laid elsewhere? (I checked the 82 hole (empty) and Bob Berry told me there was no woodpecker activity up in the canyon area?)

~~It~~ It's also possible that ♀494 laid before 0600 and ♀496 threw it out, then laid herself. I'll try to get here earlier tomorrow to see what time laying occurs.

1045, Denise has reported both ♀♀ in the hole alone twice each, so it looks good that ♀494 did not lay today & will not toss ♀496's egg.

29 April Good day at Plaque! Both ♀♀ lay (see reverse & nest record), and yesterday's egg (by ♀496) remains, meaning no reciprocal egg tossing by ♀494, even though she had ample opportunity.

28 April 1983 Plaque egg laying

- 0615 ♀ (hairline mustache, bump near eye looking out (♀496?), "two pierces" of mustache)
0627 ♀ leaves, checked hole
0639 back in blind, 25.4 x 18.4 egg in ~~blind~~ hole
0830 Relieved by Denise



Later watches proved that
this ♀ is indeed ♀496

29 April Plaque egg laying

- 0555 start, hole empty
0621 ♀496 enters
0626 1.0.
0626 b.d.
0630 1.0
0631 b.d.
0639 1.0
0640 b.d.
0644 ♀494 comes to hole, ♀496 leaves
♀494 enters, ♂521 enters
0646 ♂521 leaves
0658 ♀494 1.0.
0659 ♀494 leaves

♀496 lays between
0621 + 0644

♀496 lays

checked hole, 2 new eggs ② + ③
27.0 x 20.3 25.9 x 19.0

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Melanerpes formicivorus

Plaque NEST RECORD

26 April Somebody laid + egg + somebody carried off an egg early this morning. See Denise's + Philip's notes

27 April Nest checked 0730 after visits by both ♀♀: 2 eggs

① 27.2 x 20.3 (normal, probably ♀494)

② 21.2 x 14.8 (runt, probably ♀496)

Both removed (the runt at ~0850, the normal ~1020), by ♀496. Runt eaten by ♀496, possibly others (?)

28 April Nest checked 0630, 1 egg, ~~probably~~ laid by ♀496 for sure

① 25.4 x 18.4

29 April Nest check, 0715, 3 eggs

② 27.0 x 20.3 (♀494?)

hatched

③ 25.9 x 19.0 (♀496?)

30 April Walter report 5 eggs.

1 May Nestcheck, 1015 7 eggs

④ 26.2 x 19.3

(♀496?)

laid 30

failed to hatch

⑤ 26.9 x 19.9

(♀494?)

April

⑥ 26.7 x 19.7

(♀494?)

laid 1 May

⑦ 26.2 x 19.1

(♀496?)

2 May

Nestcheck, 1600, ~~blue~~ 7 eggs, clutch complete 1 May

11 May

Nestcheck, 0745: Hatching is starting! All 7 eggs, but ② is pipping + peeping

1830, Egg ② has hatched (nestling ^{Right leg} marked

with blue sharpie. ④ Apparently infertile. All others have a chance of hatching

12 May

1140, 4 nestlings, eggs ⑥ (pipped) + ⑦

Nest failed 6 nestlings. see notes

Nestlings from ①, ③ + ⑤ all marked blue left leg. Nestling from ② remarked blue right

M. formicivorusPlaque

1 May Checked the hole 1015, 7 eggs now, clutch is probably complete, 4-3 in favor of ♀496!

15 May Disappointing developments here, at 0900 I found the nest has failed: 6 nestlings (from all but egg ④) found dead in the nest. Swarming around the nest hole and over the dead nestling were those nasty, formic acid "oak ants", the same species that may have contributed to the demise of the 1980 nestlings. I last checked the hole on 12 May, when 4 nestling egg ⑥ (pipped) + ⑤ were present. It looks like the Plaque nestlings have been dead only for a day or so, and one of the nestlings had grown quite a bit from since I last saw him, so I put the failure date at 14 May. Plaque still has some acorns (not many) so I don't know what to attribute the deaths to: ① Starvation, the ants, ② ants, or ③ ants, abandonment - starvation. Hard to say for sure, but I suspect ③.

21 May Routine granary census. Not much interest in re-nesting, as far as I can tell. ♂521 made a quick visit to the hole, but that was it (unless they are interested in the canyon holes).

27 May After seeing birds in the Plaque nest hole, at 1530 I climb up and find 6 eggs, which I number (I'll measure them later). Only interesting thing is that a ♀ dive bombed me while I was checking the nest & even brushed my head! Late nest, no further chance of re-nesting, high defense rate.

21 May 1983 Plaque granary census

11015 ♂521 1°

20 nobody

25 "

30 "

35 ♂521 ♂721 ♀496 1°

40 ♂521 ♀494 ♀496 ♂723 1°

45 ♀494 ♂721 ws | ♀496 ♂521 ♂723 all 1°

50 ♀494 ws ♂721 1°

55 ♂721 2° | ♂521 1°

1300 ♂521 ♂723 1°

05 ♀496 ♂723 1° | ♂521 1°

10 ♂521 ♀494 2° | ♂723 1°

15 ♀496 ♂723 1° | ♀494 2°

20 ♀496 ♂723 ws 1° | ♂521 1°

25 ♀494 2° |

30 ♀494 ws ♂721 ♀496 1°

35 ♀494 ws ♂521 ♂721 1°

40 ♂721 1° |

45 ♂721 1° | ♀496 2°

50 ♀496 1°

55 ♀496 1°

1300 nobody ♀496 1°

05 ♀496 1°

10 ♀496 1°

15 nobody

defuse

1255 ♀496 Aw? 1

M. FormicivorusPlaque

5 June Checked the hole, 1730: 7 eggs stone cold!
Has the nest been abandoned? It was active
Friday when we did a snake experiment here.

Anyway, the 7 eggs measure out

- | | | |
|---------------|-------------------|-----|
| ① 25.3 x 18.9 | (496) | } ? |
| ② 26.3 x 20.1 | (494) | |
| ③ 26.0 x 19.1 | (496) | |
| ④ 27.0 x 20.2 | (494) | |
| ⑤ 26.2 x 19.9 | (494) | |
| ⑥ 26.4 x 19.2 | (496) | |
| ⑦ 26.2 x 19.7 | (494) laid 28 May | |

I suspect that the snake experiment may have
directly caused abandonment. Also, the birds have been
making a lot of harrit noise here. I wonder if
♂521 has disappeared.

15 June Routine granary census (back):

17 June " " " " All 5 birds (♂521, ♀494,
♀496, ♂721, ♂723) seen well

1 July Wow, strange goings-on here. Around 1200, while walking
down from Buckeye, up in the vicinity of the 81
nest tree, I find ♂521 sitting next to a banded
Juvenile! In the late PM (~1800) I watch and
find J889 of Pipeline ^{Black/Green-white} M / white Green! Amazing!

This juvenile wandered a full mile up the canyon
and wound up on the territory with his grandparents!
(♂660, son of Plaque, is the breeding ♂ at

15 June 1983 Plaque granary census 1500 - 1700

defence

1515 ♂521 Magpie 2

1500 nobody

1605 ♂723 EA ♀494 1°

05 "

10 ♂723 ♀494 ♂521 1°

10 "

15 ♂521 1°

15 ♂521 1°

20 ♂521 1°

20 ♂521 1°

25 "

25 "

30 "

30 "

35 nobody

35 "

40 "

40 ♂521 ♀496 1°

45 ♂521 ♀494 1°

45 ♂521 ♀496 1°

50 ♂521 1°

50 ♂521 ♀496 1°

55 nobody

55 " " "

1700 "

1600 ♀496 1°

17 June 1983

0900 - 1100

1005 ♂721 (♂723 WH) ♀494 1°

10 ♂723 WH ♀494 1°

15 ♂723 1°

20 ♂723 1°

25 ♂723 1°

30 ♂723 ♂721 ♀496 1°

35 nobody

40 nobody

45 nobody

50 ♂521 1°

55 ♂521 3°

1100 nobody

0900 ♀494 WS 1°

05 ♀494 2°

10 ♀494 2° | ♂521 ♀496 1°

15 ♀494 ♂521 ♀496 1°

20 ♀494 1° ♀496 1°

25 ♂521 WS 2°

30 nobody

35 "

40 ♀496 1° | ♂521 2°

45 ♂521 1°

50 nobody

55 ♂521 ♀494 ♀496 ♂723 1°

1000 ♀496 ♂721 1°

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M. formicivorus

♂521 11/1
♀496 c

4/11 11/1

♂521 perches 660

7

~~Plaque~~ Plaque

(1 July) Pipeline). Perhaps ♂660 "introduced" the juvenile to the "grandparents". Otherwise, we have to assume
① Phenotype matching (hard to believe) or ② sheer chance (also hard to believe).

Around 1800 hrs, J889 was hanging out in the trees up the draw E of the ~~the~~ Upper Barn. There, he seemed fairly friendly with ♂521 (who may have been feeding him!). However, ♂723 ~~was~~ was chasing and beating up J889 vigorously & repeatedly.

See Phillips notes 2-5 July.

8 July Routine granary census. See back. No sign of pipeline juveniles today. Slow, ♀494 missing

9 July Another slow granary census, but this time J889 from Pipeline put in a brief appearance in the Plaque tree, but was chased out by ♀496 (for sure) and ♂723 (I think).

J889 flew to the draw above the upper barn, and was followed by ♂723. This time ♂723 did not pursue.

In fact, J889 ^{approached &} begged from ♂723, though ♂723 did not feed

20 July Granary census, 1500-1700

1500 nobody

05 ♀496 1°

10 ♀496 w/s 1°

15 ♀496 ♂521 J889 1°

20 ♂660 1°

25 ♂660 1°

30 nobody

35 nobody

40 ♀496 1°

45 ♀496 EA 1°

50 ♀496 ♂660 J889 ♂721 ♂521 1°

55 ♀496 2° | ♂660 ♂721 ♂521 1°

1600 ♂660 ♂721 ♀496 1°

05 ♂660 ♂721 ♀496 1°

10 ♂660 ♂723 ♀496 J889 1°

15 ♂660 ♂521 1°

1620 ♂521 ♂660 1°

25 " "

30 ♂521 1°

35 ♂521 1°

40 ♂521 1°

45 ♀496 ♂660 1°

50 ♀496 ♂660 J889 1°

55 " " "

1700 nobody

defuse 1613 ? B Tower 2

8 July 1983 Plaque gravity census 1430 - 1630

a few acorns still present

1430 nobody

35 "

40 "

45 "

50 "

55 "

1500 "

05 ♂ 723 ♀ 496 1°

10 ♂ 723 ♀ 496 1°

15 ♂ 723 ♀ 496 1°

20 ♂ 723 1°

25 ♂ 723 ~~♀ 496~~ 1° ♂ 721 1°

1530 ♂ 723 ♂ 721 ♀ 496 1°

1535 ♂ 723 ♀ 496 1°

40 ♂ 723 1° ♀ 496 WH 2°

45 ♂ 521 2° | ♀ 496 ♂ 723 1°

50 ♂ 521 1°

55 nobody

1600 nobody

05 "

10 "

15 "

20 "

25 "

30 "

no defense

9 July 1983 0900 - 1100

0900 nobody

05 ♂ 521 1°

10 ♂ 521 WH

15 nobody

20 "

25 ♀ 496 WS

30 ♀ 496

35 nobody

40 "

45 "

50 "

55 ♀ 496

1000 ♀ 496 1°

05 ♀ 496 1°

10 nobody

15 ♀ 496 ♂ 521 1°

20 nobody

25 "

30 ♀ 496 ♂ 723 1°

35 ♂ 521 1°

40 nobody

45 "

50 "

55 "

1100 "

10 July 1983

1155 - 1355

1155 ♂ 521 1°

1200 ♀ 496 1°

05 ♀ 496 1°

10 " 1°

15 " 1°

20 " 1°

25 " 1°

30 ♀ 496 ♂ 521 1°

35 ♂ 721 ♀ 496 1°

40 ♂ 721 1°

45 ♀ 496 1°

50 ♂ 521 1°

55 ♀ 496 1°

1300 ♀ 496 ♂ 723 1° | ♂ 521 2°

05 ♂ 521 EA, ♀ 496 ♂ 723 1°

10 ♂ 521 ♀ 496 ♂ 723 1°

15 " " " "

20 ♂ 723 1°

25 ♂ 723 1°

30 ♀ 496 1°

35 nobody

40 nobody

45 nobody

50 "

55 "

defense

1217 ♀ 496

1227 ♀ 496

1228 ♀ 496

Bluebird
~~Bluebird~~ 1

Ground Squirrel 1

Nuttall's W 1

M. formicivorusPlaque

(20 July) A very interesting watch: ① ♂660 is here with J889, both present throughout the watch. So it now seems quite a bit clearer that ♂660 "introduced" J889 to Plaque. ② ♂521 fed J889 4 times, but never by any of the other birds, including his father, ♂660. In fact, ♀496 still has a moderate-strong dislike for J889. ♀496 chased the juvenile 9 times (at least) during the watch. ③ Saw a very strong, vigorous dominance interaction between ♂521 + J660. Much pecking by the former, much chattering by the latter.

21 July Slow granary census, 1105-1305. Only ♀496 + ♂521, plus an intrusion by ♀787 of 1800.

Plaque not abandoned Fall 83. By spring '84, however, Plaque contained only ♂521, as he chased helper ♂♂ and ♀496 away as acorn supplies dwindled.

21 July 1983 1105 - ¹³1405 Summer-grading census

1105 nobody

10 "

15 "

20 "

25 "

30 "

35 ~~Summer~~ "

40 ♂521 WS 10 (♀787, too)!

45 ♂521 10

50 ~~nobody~~ ♂521 ♀496 10

55 ♀496 WS 10 ♂521 10

1200 nobody

05 nobody

1210 nobody

15 "

20 ♀496 10

25 "

30 "

35 "

40 "

45 "

50 "

55 nobody

1300 "

05 "

defense

1140 ♂521 ♀787 (1800) 2
(♀496 not around)

22 July 0715 - 0915

♂521 feeds J889 //

♀496 chases //

0715 ♂521 ♀496 J889 10

20 ♂521 ♀496 J889 10

25 " " " (♀496 WS) 10

30 ♂521 J889 ♀496 10

35 ♂521 20 | ♀496 J889 10

40 ♀496 10

45 nobody

50 "

55 ♀496 10

0800 ♀496 10

05 ♀496 10

10 ♀496 ♂521 10

15 nobody

0820 nobody

25 ♂521 20

30 ♂521 20

35 ♂521 20

40 ♂521 ♀496 10

45 ♀496 10

50 ♀496 10

55 ♀496 10

0900 ♀496 10

05 ♀496 10

10 " 10

15 " 10

defense

0753 ♀496 Hairy Woodpecker 2

0913 ♀496 Hairy Woodpecker 2

Melanerpes formicivorusYHastings Reservation17 Jan

** GROUP UPDATE **

① ♀848 banded as Adult 30 Dec 1982.19 Feb

Walking by 1130, I flush 3 birds, which prove to be ♂669, ♀848, and not surprisingly, ♂754 LGn/wht-DGn of SHill. Everyone looked quite friendly. ♂754 is probably "just visiting" but we'll keep a close watch here.

1 April

Walking by 1 April, I find ♂754 ^{wht-DGn/m} of SHill in the granary, then 10 min later working on the half-completed nest hole on the knoll! Is he moving here for good?

26 April

Weird semi power-struggle flare-up here, 1700. 3 1800 ♀♀ (785, 786, 787), 2 1500 ♀♀ (675, 818) intruding here. At first, it looked like the 1800 ♀♀ were winning, and no sign of ♀848. However, around 1725 ♀848 finally showed up, and with the help of the two ♂♂ 669 + 754 (!) she managed to regain control of the granary by 1730. The ♂♂ were very active in chasing the ♀ intruders.

Also saw a strong ♂669 >> ♂754 dom interaction

11 May

Swinging by, 0730, I see 3 birds (!), and I'm sure the extra is ♂754. I've seen him off & on here all spring, and I'm beginning to think he belongs.

29 June

** GROUP UPDATE **

① ♀848 disappeared 830508 ± 1 week: Last seen 26 April, replaced by ♀675 on 20 May.

② ♀675 moves here 830508 ± 1 week:

1983 R. L. Mumme

2

M. formicivorus

Y

Y ABANDONED fall 83

1982 R. L. M

Melanerpes formicivorus

1500

17 Jan ** GROUP UPDATE **

♂677 disappeared 25 July 1982 ± 2 weeks.

Last seen at 1500 11 July, missing 7 Aug

21 Jan Flushed 5 birds here, walking by at 1310

19 Feb A quick look here at 1100 produces a complete census: ♂297, ♂622, ♀601, ♀675, ♀818 all seen well. Looks like the birds are still harvesting acorns from some Live Oaks up the draw.

May
1 April Philip has reported ① strong mate guarding and ② an interest in the 79-81-82 nest hole. However, walking down the lane at 1500 hrs, I flush a bird out of a new hole in a thin dead stub overhanging the lane (a Valley Oak). Back at 1700, I open up the back and find one egg, marked #①. Hole is very fragile, and may not survive long.

22 June Two nests failed in this hole: See nest record.

29 June ** GROUP UPDATE **

① ♀675 moved to Y 8 May 1983 ± 1 week:

At Y for sure on 20 May, ♀848 still at Y on 26 April.

1500 ABANDONED fall 83, before mid-September
(acorn census showed no birds around)

1983 R.L. Mumme

M. Formicivorus

1500 Nest Record

- 1 May Opened up new hole in dead stub of Valley Oaks overhanging lane. ¹⁷⁰⁰ 1 egg.
- 2 May Philip reports only ♀601 in the hole in the AM, Walter reports 2 eggs ^{at 1300}, the first sacrificed for incubation data.
- 3 May 1415, Still 2 eggs, ①+②. Philip reported ♀601 in the hole this AM, but I guess she took the day off.
- 4 May Flushed a bird out of the hole 1650: Peeped in, found 3 eggs. See Philip's notes of ♀601's activities.
- 5 May Checked hole, 1700. Still 3 eggs. Is clutch complete?
- 7 May Checked hole, 0900. 3 eggs
- 14 May Walter reports nest failed, two eggs with near-hatching embryos found below nest on ground.
- ^{June}
2 May Peeped into new nest in same hole:
3 eggs ~ 8 days (?)
- 22 June 1230 Peeped in, nest completely empty, not sure when it failed.

Melanerpes formicivorus

1800

Hastings Reservation20 Jan

Granary census, 1100-1300. Good watch and a complete census (♂476, ♂347, ♀193, ♀♀785, 786, 787 all seen repeatedly). Even a bit of storing of live Oak acorns harvested from the trees SW of the granary, and perhaps along Big Creek, too.

19 Feb

Decent granary census + call count, 0835-1035. All 6 birds seen well, though ♂347 kept a very low profile. No storing.

20 Feb

**

→

Granary census, 1335-1535. Details on back
dominance: ¹⁴¹² ♂347 chattered to ♂476 after ♂347 flew to him. Pretty good granary census. ♂♂347, 476, ♀193, J♀♀786 + 787 seen well, but ♀785 not around for some reason.

22 Feb

→

Funny goings on south of 1800. At 1145 I find a lot of wakas + chasing going on, seemingly centered on the old falling-apart roost tree just above the decaying granary. Birds involved are a ♂NB, 2 ♀NB (apparently operating independently) plus, peripherally, ♂790 ^{Red/Blk-whr} Red/M of gate and ♂754 ^{Coln/whr} Dbrn of School Hill! One of the ♀NB and the ♂NB seem to have taken over the roost tree. The ♀ spent a lot of time looking out of a down-facing hole in the tree. The ♂ + ♀ wakad a few times, but not a lot. The other birds appeared to concentrate in the sycamore along the creek and the canyon just to the south of 1800. Surprisingly, the 1800 birds were not contesting any of this intrusion into their territory.

20 Jan 1983 1800 granary census

1100 nobody
 05 ~~Q193~~ " "
 10 " "
 15 " "
 20 " "
 25 ♀193 ♀787
 30 ♀193 WS ♂347 ♀785 ♀786 ♀787
 35 ♀193 ♀785 786 787
 40 ♀193 | ♀785 ♀787 WS
 45 ♂476 ♀785 MA | ♀193 WS | ♀786 ♀787
 50 ♂476 ♀193 WH | ♀785 ♀787 ♂347
 55 ♂476 WS ♀193 WH
 1200 ♀193 WH ♂476

1205 ♀193 ♂476
 10 " "
 15 ♀193 ♂476 WH ~~WH~~
 20 ♀193 ♂476 WH | ♀786 EA | ♀785 WH
 25 ♀193 ♂476 ♀785 ♀786
 30 ♀193 ♂476 WH | ♀785 MA | ♀786 WS
 35 ♀787
 40 ♀193 ♂476 SA | ♂347 ♀787
 45 ♀193 ♂476 ♂347 ♀787
 50 " " " "
 55 ♂476 ♂347 SA | ♀193 WH
 1300 ♀193

Storage
 ♂476 III
 ♀193 I
 ♂347 III
 (8) total

19 Feb 1983 1800 granary census

0835 ♀193
 40 ♀193
 45 ♀193
 50 nobody
 55 ♀193 EA
 0900 ♀193
 05 ♀193 ♀785
 10 ♀193 ♀785 ♀786 ♂476 ♀787
 15 ♀193 ♀786 ♀787 ♂476
 20 ♀193 ♀786 ♀787 ♂476
 25 ♀193 ~~MA~~ ♀787 ♂476
 30
 35 ~~MA~~ ♂476

0940 ♂476 ♀193
 45 ♀193 WH ♂476
 50 ~~MA~~ ♀193
 55 ~~MA~~ ♀193
 1000 ♀786 EA ♀193
 05 ♀193
 10 ♀193
 15 ♂476 ♀193 WS
 20 " " " | ♂347
 25 ♀193 WH | ♂476
 30 " " " |
 35 " " " |

20 Feb 1983 1335-1535

1235 nobody
 40 "
 45 "
 50 "
 55 "
 1400 "
 05 ♂476 EA
 10 ♀193 ♂347 WS | ♂476
 15 ♀193 ♂347 ♂476
 20 ♀193 ♂476 WS | ♂347 ♀787
 25 " " " | " "
 30 ♀193 ♀786 ♂476
 35 ♂476 WS ♀193 WH ♀786

1440 ♀193 | ♂476 WS
 45 ♂476 WH | ♀786 | ♀193 WS
 50 ♀193 ♂476 WH | ♀786
 55 ♀193 WH | ♂476 ♀786
 1500 ♀193
 05 ♀193
 10 ♀193 WS ♂476
 15 ♀193 MA ♂476 ♀786 ♀787 ♂347
 20 ♀193 ♂476 MA | ♂347
 25 ♀193 MA ♂476 WH ♂347 WS
 30 ♀193 ♂476 WS | ♀786
 35 ♀193 ♂476 WS | ♂347

defec-se:

1428 ♂476 ♀193 ♀787 GS 1
 1435 ♀193 GS 2
 1530 ♀193 ♀786 Stel Jay 1

Melanerpes formicivorus1800(22 Feb)

I'm not sure what the big attraction here is. Certainly there are a few usable storage holes around, but nothing to write home about. There are still acorns in the live oaks along the creek (Stellers + Scrub Jays visiting these trees frequently). It's also a very warm, sunny, amazingly spring-like day, too. This situation warrants further attention.

1215, Just saw ♂ 723 ^{N / Dbrn} ~~DBN-BR-N~~ (N) / ^{of Plaque} L Pink here chased a bit by a ♂ NB in the Valley Oak at the base of the "1st canyon". A ♂ + a ♀ (both unbanded) were looking quite friendly there. 1230, ♀ 753 Red-wh / L Blue of still also around. Quite a free-for-all. Very quiet now, though.

23 Feb

Granary census 1040-1240. I walked by the scene of yesterday's action, and found nothing going on.

1230, saw ♂ 476 excavating a new hole in the old dead 1980 nest stub. Fortunately, the hole is fairly close to the base, so rope ladder fastened above or extension ladder should work. Currently, it looks like the hole is 4" deep, judging by ♂ 476's dipping. Incidentally, the 1981 nest hole has fallen apart: I found the cut, soaked & rotten, beneath the hole 3-4 days ago.

3 March

Routine granary census, 1420-1620: ♀ 193, ♂ 347, ♂ 476, ♀♀ 785, 786, 787 all seen well.

26 March

After ambush + removal of ♂ 347 last week and shooting of ♂ 476 yesterday, we have a moderate power struggle going on. At 1245, when I get here, ♂ 622 of 1500 (!) seems to have it

23 Feb 1983 1800 granary census 1040-1240

1040 ♀193
45 nobody
50 "
55 ♂347 ♀193
1100 ♀193
05 ♀193 WH ♂347
10 nobody
15 ♀193 WS | ♂476 ♀787
20 ♀193 ♂476 WS ♂347
25 ♀193 WH | ♂476 ♂347
30 ♀193 ♂476 WS
35 ♀193 ♂476 WH ♀787 ♂347
40 ♀193 ♂476 WH ♀787 ♂34

1145 ♀193 MA ♂476 WS ♂347 ♀786 ♀787
50 ♂476 WH ♀193 MA ♀786
55 ♀193 WH
1200 nobody
05 "
10 ♂476 ♀785 ♀786 ♀787 ♀193
15 ♂347
20 ♂347 ♀193 ♂476
25 ♀193 MA ♂476
30 ♀785 ♂476
35 ♀193 WS ♂476 WH ♀786
40 ♀193 ♀786 ♂347

1205 Plain Tit ♂476 1
1211 Stel Jay ♂476 2
♀193 2
1215 Stel Jay ♂347 2

1228 ♀ Nutt WP 2
1230 ♀ Junco 1
1235 ♀676 6 Squirrel 1
1240 ♀193 Stel Jay 1

3 March 1983 1800 granary 1420-1620

1420 ♀785
25 nobody
30 "
35 ♀193 ♀785
40 nobody
45 ♀193
50 ♀193
55 ♀193
1500 ♀193 WS ♂476
05 ♀193 ♂476
10 ♂476 ♀193
15 ♂476 ♀193 ♂347
20 ♂347 ♀193 ♀785 all WS

1525 ♂476 ♀193 ♀787
30 ♂476 ♀193 ♀787
35 ♂476 ♀193 ♀787
40 ♀193 WH
45 ♀193 WH
50 ♀193 WH ♂476 ♀785 | ♂347 WS
55 ♀193 WH ♂476 ♀785 ♂347
1600 ♀193 WH ♀785 ♂476 | ♀786 EA
05 ♀193 WH ♂476 WS ♀786 ♀785
10 ♀193 WH ♂476 WS ♀786 ♀785
15 ♀193 ♂347
20 ♀193 WS ♀785

1455 ♀193 Ground Squirrel 3
1520 ♀193 " " 1
1545 ♀193 " " 1
1615 ♀193 ? AW? " 3

6 March 1983 0830 - 1030

0830 ♀193
35 ♂476 ♀193 ♀787
40 ♀787
45 nobody
50 ♀193 ♂476 ♀786 ♀787
55 ♂476
0900 ♀193 ♂476
05 ♂347 ♀193
10 ♂347 ♀193 ♂476
15 ♀193 WS ♂347 WH ♂476 ♀786
20 ♀193 ♂476 WH ♀786 ♀787 WS
25 ♀193 ♂347 WS
30 ♀193 ♂476 ♀787
35 ♂476 WH ♀193 ♀785
40 ♂476 WH ♀193
45 ♀193 WH ♀787 ♀786
50 ♀193 ♂476 WH ♀786 ♂347

0955 ♂476 WH ♀193 ♀786 ♂347
1000 ♂476 WH ♀193 WH, ♂347 ♀785 ♀787
05 ♂476 WH, ♀193 ♀786 ♀787 ♀785 | ♀193 WH
10 ♂476 WH ♀785 ♀787 | ♀193 WH | ♂347
15 ♂347 ♀785 ♀787
20 all (♀193 WS)
25 ♀193 WH ♂476 ♂347 ♀785
30 ♀193 WH ♂347 ♀785 ♂476

defense
0845 ♂476 AW? 1
0855 ♀193 ♀NB 1 (♂476 ne
0940 ♀193 Stel Jay 1

1983

R.C. Munn

3

Melanerpes formicivorus1800

(26 March) won! This is especially neat, since ♂622 is a pretty sure breeder, since he guarded ♀601 very closely last spring at 1500. Anyway, he is in complete undisputed control of the granary. I hear a couple of other birds garricking + wakaing among the Live Oaks on the south ridge (2 ♂NB, according to Susan) but they appear to be no threat.

♂622 may not be too keen on some of the ♀ helpers. Saw him take a peck at ♀785.

1315, a brief flurry of activity over in the 2° area (near 1500). I wander over and find a ♂NB chasing another ♂. The ♂NB was then chased in turn by ♂622 (presumably) and two other 1800 birds when he wandered too near the granary.

Also, I see what has to be ♀524 ^{Dark-Brown(N)/white} of Low Hay. Was she just checking things out, or does she have wanderlust, now that all the ♂♂ at Low Hay are her sons.

3/March Uh oh, while doing a granary re-sus at Plaque at 1415, ♀787 intruded ^{Red-Yellow.M} ^{Yellow-white/Red-white}. Assign that all may not be well among the 4 ♀♀ and the 3 Low Hay ♂♂ that moved in a few days ago.

1 April Checking up on things here 1530: Very quiet! All 7 birds (♀193, ♀785, ♀786, ♀787, ♂770, ♂771, ♂724) seen, but no real action. Power struggle is OVER!

<u>3622</u>	<u>moves to + greet</u>	<u>moved to me + greeted b.1</u>	<u>chases or squabbles</u>	<u>mount</u>
♀ 193			1	1
♀ 785				
♀ 786	1			
♀ 787				

dominance, ♀ 785 > ♀ 786 1 (I think!)

1983

R. C. Mumme

4

Melanerpes formicivorus18005 April

* * GROUP UPDATE * *

① ♂347 removed 16 March 1983

② ♂476 removed (shot) 25 March 1983

③ ♂♂770, 771, 774 Moved here from Low Hay
28 March 198319 May~~Susan~~ Philip climbs up checks the hole, finds
4 eggs, meaning clutch was complete 18 May.
29 May will be hatching, + 20 June banding.21 June

Banded 2 healthy, 1 pretty good nestlings here.

See capture records for Juvs. 917-919.

1800 ABANDONED fall 83. Probably gone by
the fall 83 ~~acorn~~ census (mid September) when I detected
no birds around.

Melanerpes formicivorusHay Blom17 Jan

** GROUP UPDATE **

① ♂562 disappeared 7 Oct 1982 ± 2 weeksLast seen 23 Sept, clearly gone 20 Oct② ♂571 moved here from Gazebo ~ 7 Oct 1982Last seen Gazebo ~~on~~ 17 Aug. First seen at Hay Blom ~~at~~ 20 Oct.3 MarchUp here with Philip 1140. All 3 ~~birds~~ birds seen well, ♀604 ^{Red-wht/Black}, ♀711 ^{LBlue/Red} M, and ♂571 ^{LBlue-Black/LBlue}. ♀604 + ♀711 looked

very friendly together in the mistletoe tree.

1 April

Watching here, 1045, seeing if these birds are showing any signs of nesting. 1100, Not really. ♂571, ♀604, ♀711 all seen well, plus a couple of intruders (spillover from Low Hay, no doubt). Did see two birds fly over + perch outside the "traditional" fence line hole probably in response to prospecting bluebirds. 1105, just as I'm leaving, 2 birds hanging around and possibly visiting one or both of last years holes. We will have to be alert here.

12 April

Watching here for signs of nesting, 1045: By 1140, nothing much. But walking past again at 1220, I flush two birds out of the (ugh!) upper hole in last years nest tree. I would have much preferred them nesting elsewhere.

2 May

Finally, Denise reports some interest in the "traditional" fence line hole. I open it up at 1300, find no eggs, of course.

M. formicivorusHay Blom

3 May Whoa, things happen fast here. Denise watched here in the fog ~~at~~ this morning, and she saw a shadowy figure of an ALV leaving the feline hole at 0630.

I climb up at 0715 and find one egg! Laid by somebody earlier today, but we don't know who.

Denise & Philip start all day watch of the hole and the egg. Egg measured: 26.8 x 18.7.

Denise reports that ♀604 "tossed" (carried egg to granary, not known to be eaten.) 1500 hrs. The egg is much longer & narrower than the eggs laid last year by ♀604 (the narrowest of 7 eggs last year measured 25.8 x 19.5), so I suspect that ♀711 is the ♀ that laid this egg. However, we will have to see what happens tomorrow.

4 May Good stuff today. ♀711 clearly laid an egg this morning, and ♀604 threw it out (again carrying it to the granary, where she "dropped it off" and returned to the nest hole. Whether the egg was eaten again unclear, but not important. What is important is that ♀711 was certainly the ♀ that laid, another case of a natal territory ♀ laying when dad has been replaced. See Denise's notes.

5 May Denise watches here and finds nobody going in the hole. I checked it at 0815, finding it empty.

6 May I check both of the "far tree" holes, both empty 1000.

11 May HB has pulled a fast one on us. See nest record.

12 June Nest failure here, see nest record.

M. forficivorusHay Blom20 June

New nest here: After seeing a bird looking out of the lower hole in the 1982 nest tree on 17 June, I climb up today & find 5 eggs, ~5 days old. Curiously, all 5 eggs were very similar in shape & suggested ♀604: Did ♀711 fail to lay? See nest record.

19 July

Banded 3 healthy young, Juv. 936-938.
See cap recs.

Hay Blom ABANDONED Fall 1983. In mid september, during the acorn survey, I recall seeing two birds (including one juvenile) in the granary. Abandonment probably occurred after that.

1983

R. L. Mumme

M. formicivorusHay Blom NEST RECORD3 MayEgg found at 0730 (26.8 x 18.7) (presumably laid by ♀711) in feline hole removed by ♀604 at 1500 hrs4 May

♀711 lays at 0555, egg carried to granary at 0630 or so (see Denise's notes) by ♀604

5-7 May

No eggs laid, as far as anyone could tell

11 May

Denise finds surprise nest in VO in Blomquist ranch.

opened hole 0930: 7 eggs① 25.6 x 18.6

♀711?

ownership guessed
by egg measurements,② 25.3 x 20.8

♀604

but separation is

③ 27.9 x 17.7

♀711

so distinct I feel

failed to hatch

④ 23.3 x 19.5

♀604

good about it

⑤ 26.1 x 20.3

♀604

⑥ 26.0 x 18.6

♀711

⑦ 26.8 x 20.3♀604
probably freshest

all of the eggs except ⑦ had enormous, bizarre air cells.

15 MayChecked the hole 1700, still 7 eggs22 MayNest check, 1800. 5 healthy, 3 day old nestlings

(clutch must have complete on 8 or 9 May, at the latest), plus egg ④ which failed to hatch. So nestling skew is 3-2, in favor of who I do not know

Egg ④ contained a full-term embryo.

12 JuneUp here for banding, 1200: 3 dead nestlings, were ~ 15-18 days old at death. Hay Blom still has acorns, too17 June

Bird looking out of 1982 second-nest hole

20 June1000 checked hole: 5 eggs ~ 4⁵ days old
(measurements on back)

20 June 1983 (cont)

- ① 26.4 x 21.7
- ② 26.8 x 21.4
- ③ 25.6 x 21.1
- ④ 23.8 x 20.4
- ⑤ 27.1 x 21.3

19 July 1983

Banded three nestlings
Juvs 936-938. See cap recs.

Melanerpes formicivorusLower Haystack17 Jan

** GROUP UPDATE **

① J772 disappeared 9 Aug 1982 ± 1 week:Last seen ²⁸~~10~~ July, Missing 21 Aug.1 April

Up here to check out the post-power struggle activity (see Susan + Philip's notes). As I walk up at 0825, I find ♀711 ^{Blue/Red} briefly in the watch tree before flying off toward Hay Blom. ♂832 OGn/LPink of Blom also in the watch tree, along with ♀675 ^{Grn-wht/M} OGn-wht/PGrn of 1500.

0900, in complete control of the 1° + 2° granary are ♀524, ♀587, and 3 ♂NBs, as reported by Philip. Only occasional intrusions into the 1° or 2° granaries, and those intruders are quickly routed. They also seem to control the utility pole and the broken top tree.

♂832 + ♀675 still have the watch tree, but I doubt that will last long.

0915, Getting the impression that one of the ♂♂ here is not interacting with the others very much. We will, of course, have to band them soon in order to find out.

0940, also a couple of birds over in the 2° area, one of which is a ♀NB.

5 April

** GROUP UPDATE **

① ♂461 removed 25 Feb 1983

② ♂770, ♂771, ♂774 moved to 1800 28 March 1983

③ 3 unbanded ♂♂ moved here 30 March 1983

Melanerpes formicivorusLower Haystack24 April

Watching here 1230 for signs of male guarding.
1330, looks like no guarding. Difficult to tell, but it looks like the ♀♀ are following the ♂♂ around. Twice the birds flew toward ($n=1$) and away ($n=1$) from the granary en masse of 5, and in each case it was a ♂ that led the group. Also checked the hole + found no eggs.

28 April

Susan reports a runt egg tossed by ♀524 (eaten)

29 April

Susan reports ♀587 lays normal egg, tossed by ♀524 (see her notes)

30 April

Susan reports ♀587 lays normal egg; tossed + eaten by ♀524 (see her notes)

1 May

♀587 lays another normal egg, tossed + dropped (because of ♂ interference) by ♀524. See Susan's notes

After Susan's watch, I try to get some mate guarding data, but things were very, very confusing. Some ~~more~~ M6 "data" (to use the term loosely) can be found on the back. But the real "highlights" were ① Twice I saw ♂858 chase + peck at ♀524. Those two are not getting along well. ② At one point I absolutely certainly saw 2 ♂NB's perched together in the granary, quite peacefully, too. Is he a brother of these ♂♂ that is just visiting, or what ③ The (or one of the) ♂NB pecked hard at ♂858 once and also at ♀587. ④ ♂858 may be guarding ♀587, and a ♂NB may be guarding ♀524 (I saw the latter couple briefly exchange mounts)

0805 1 May 1983 Low Hay M6

0755 all 5 1° g

0800 ♀524 ♀587 ♂NB ♂858 1° | ♂857 elsewhere

0805 ♀524 1° g | others elsewhere

0810 ♂NB FT |

0830 nobody

	♀587	♀524
♂857 MAF	1	1,
♂NB MAF		1
♂NB FTF	1	11
♂858 F	1	1
♂858 MAF		1
♂NB F		1

M. formicivorusLow Hay

- (1 May) ⑤ ♂857 appears to be out of it altogether. A very confusing situation, to say the least.
- 2 May Walter reports ^{no} egg laying today.
- 3 May I watch here 0540 - 0730. Both ♀♀ were in & out of the hole regularly, (♀524 especially) but no eggs laid.
- 4 May Susan reports ♀524 lays & tosses herself a runt egg, and the egg eaten communally. See her notes.
- 5 May Good stuff! ♀524 lays normal egg, and ♀587 tosses & eats solo! Reciprocal egg tossing from the same hole! See Susan's & Philip's notes.
- 6 May ♀524 lays, & ♀587 tosses, despite interference by ♀524 & ♂NB. See Susan's, Philip's notes.
- 7-8 May No laying, see Susan's notes.
- 11 May Watching here 0540
 Smooth line, lumpy forehead
 0545 ♀524 enters, leaves 0550.
 0606 ♀587 enters briefly
 09 ♀524 enters 1.0. 0611 leaves 0616
 19 ♀524 enters, 0623 leaves
 checked hole, 0700. No eggs.
- 13 May Susan reports both ♀♀ lay, 2 eggs
- 14 May " " " " " 4 eggs
- 15 May I get a shock: Wander up here 1730 to "mark the new eggs", and I find the nest hole empty! What happened to the four (possibly 6) eggs that were here yesterday. I will have to watch here tomorrow 1810, while writing notes, whole lotta chasing going on here. These birds have problems.

M. formicivorusLow Hay

16 May Watched here, 0545-0700: No eggs in the hole when I checked it at 0700, and only ♀524 made 3 quick visits (though ♀587 looked in a few times). Still domestic problems here: A ♂ chased ♀524 fairly vigorously on at least two ~~on several~~ occasions.

18 May 0545-0700, Looks like we could be getting close here. Both ♀524 + ♀587 spent a long time (~35 min for 524, ~20 min for 587) in the hole simul-- Wow! Hddo. Anyway, both ♀♀ were in simultaneously between 0625 and 0655. However, I did not see ♀587 leave, and I thought she was still in the hole when I went to check at 0700. I found the hole empty. However, while writing the above at 0715, I heard a big chase going on ~~in the~~ (chase originated in the 1^o granary). To my considerable surprise, I looked up and saw two birds chasing a third bird that was carrying an egg! This bird was chased eventually to the 2^o granary, where I was able to scope it briefly (a ♀ for sure, but I couldn't see the bands) while it ate a bit of the egg before flying off. I was able to climb up to the limb where the egg was deposited, and I found a fragmented egg, all liquid gone, but length still measurable 26.4. It fell apart before I could get width.

What happened? Did a ♀ lay in a different hole? Did ♀587 remove the egg when I missed seeing her leave? Did I miss the egg when I checked the hole? We will have to find out tomorrow.

M. formicivorusLow Hay

22 May Philip checked the hole this afternoon, found no eggs.

25 May Denise + I checked the hole, 0830: 4 eggs, marked
① - ④ (③ + ④) looked the freshest. Maybe Low Hay
finally has it together.

26 May 1730, Nestcheck: 6 eggs

① 27.6 x 21.1

② 27.2 x 20.6

③ 27.8 x 21.1 damaged, floating air cell

④ 28.6 x 20.3

⑤ 29.2 x 19.8 } failed to hatch } laid 26 May

⑥ 28.5 x 20.9

⑦ 27.8 x 20.6

Measured by Susan

29 May
~~29 May~~

4 June Susan reports egg ③ has disappeared

7 June Nestcheck, 1600. 5 nestlings, plus egg ⑤ which
failed to develop.

29 June ** GROUP UPDATE **

① Another unbanded ♂ joined group 830501,
(I first saw 2nd ♂ NB 1 May)

② ♂ 857 (1st-year) + ♂ 858 (AU) banded at
Low Hay by Susan 13 ~~April~~ ^{May} April 1983.

LOW HAY ABANDONED Fall 83, No birds
present during mid September acorn census, so abandonment
likely occurred before then.

Melanerpes formicivorusGazebo17 Jan

** GROUP UPDATE **

① ♂571 moved to Hay Blom ~ 7 Oct 1982 \pm 2 weeks.
(See Hay Blom notes)

② ♀570 returned to Gazebo 10 Oct 1982 \pm 2 months

~~Abba~~ Definitely not at Gazebo during June-July nesting, Probably not back on 17 Aug. First seen back 3 Dec 1982.

6 March

Ambush here, but all we catch are the 4 Juv, 819-822. ♀819 was roosting alone in the 82 nest hole, the others together in a dead stus hole.

Only interesting thing is that ♀819 appeared to have banded. ♀819 M/Orange-White (not yellow)
Red/white-Orange

June

Susan reports 3 eggs laid in the low hole, then 4.

29 June

** GROUP UPDATE **

① ♂516 shot 11 April 1983. (See Susan's notes)

② ♂717, ♂718 (adults), ♂836 (1st year) moved here ~~from CV Grande~~ from CV Grande 17 May 1983

7 July

Banded 4 healthy nestlings here, J932-J935.
See capture records.

3 Aug

Watching here 0930-1030, I do OK. 3 Juv seen well, J933 ^{wht/Mouse-white}, J934 ^{M/Blk-Or}, and

Juv dom!

J935 or/m. Even saw J933 take a couple of sharp dominance interactions from J934 (J933 dominant). Also saw ♂718 ^{Blue/m} and ♂836 ^{Yellow-Orange/Blue/m}. ♂718 was feeding all 3 of the juvs at one time or another.

GAZEBO ABANDONED Fall 83

Melanerpes formicivorusBlom 117 Jan

* * GROUP UPDATE * *

① J831 disappeared 27 Sept 1982 ± ~~one~~ 1 monthLast seen 31 Aug, Gone 23 Oct.20 Jan

Granary census from blind. 1345-1545. Complete census, ♂492, ♀649, ♂830, ♂832 all seen well, but a pretty slow watch, all in all.

1 Feb

Granary census 1000-1200 (countas 11-1300). Very slow, (cool breezy (but sunny) AM). Only ♂492 and a ♀ (assume ♀649) seen, but both stored an acorn each.

4 Feb

Good granary census, 0820-1020. All 4 birds seen well

21 Feb

Granary census, 1030-1230: Details below:

1030 nobody	1135 ♂492 WH ♂830 WS ♀649
35 ♂492 EA	40 ♂492 WH ♀649
40 ♂492	45 ♂492 WS
45 "	50 " "
50 nobody	55 ♂492 / ♀649 WS
55 ♀649 ♂492 ♂832	1200 ♂492 WH / ♀649 EA
1100 ♂492	05 ♂492 WH / ♀649
05 ♂492	10 ♂492 WH / ♀649
10 "	15 " " "
15 "	20 ♂492 ♀649
20 "	25 ♂492 EA ♀649 ♂830
25 "	1230 ♀649 ♂830
30 ♂492 WS / ♀649	

defense 1050 Nuthatch 0 (nobody around)

1055 Nuthatch ♀649 2

1125 Unid Pas. ♂492 1

1143 Yellow-rump-b ♂492 1

* * →

dominance, 1130 ♂830 flew into granary. ♂492 approached him then pecked ♂830 several times, ♂830 chattered and moved away. Otherwise, routine watch. All four birds seen well. Saw ♀649 fly in with a acorn once, so they still may be harvesting acorns.

20 Jan 1983

Blom one granary census

1345-1545

1345 ♂492 EA	1450 ♂492
50 " WU	55 "
55 nobody	1500 "
1400 "	05 "
05 "	10 "
10 "	15 "
15 "	20 ♂492 ♀649
20 "	25 ♂492
25 "	30 nobody
30 "	35 "
35 ♂492	40 ♂492
40 ♂492 WH ♂832 EA ♂830	45 "
45 ♂492	

1 Feb 1983

1000 nobody	1105 nobody
05 ♂492	10 "
10 ♂492 EA	15 "
15 ♂492	20 ♂492 EA
20 "	25 nobody
25 "	30 "
30 "	35 "
35 "	40 "
40 "	45 "
45 "	50 "
50 "	55 "
55 "	1200 "
1100 "	

storage
♂492 1
♀649 1

4 Feb 1983

0820 nobody
25 ♂492 ♂830 ♂832
30 ♂492 ♂832
35 all 4
40 ♂492
45 nobody
50 "
55 "
0900 ♂492 ♀649
05 " "
10 nobody
15 "
20 ♀649
25 ♂492 WS ♂830
30 nobody
35 ♂492
40 ♂492 EA
45 ♀649 EA ♂492 ♂832
50 ♀649 ♂492 ♂832
55 nobody
1000 ♂492 WS ♂832
05 ♂492
10 ♂492
15 ♂492 ♀649

1020 nobody
♂492 ♀649 ♂832

defense

0830 ♂492 magpie 2

1983

R.C. Mumme

2

Melanerpes formicivorusBlomone22 Feb

1st yr dom

→

Granary census, 1320-1520. Routine, but like yesterday, ♂492 jumped all over ♂832 when ♂832 flew into the granary and landed on a storage. Like ♂830 yesterday, ♂832 chattered and received several pecks for his trouble. All 4 birds seen well.

23 Feb

Granary census, 0810-1010. All 4 birds (♂492, ♂830, ♂832, ♀649) seen well. Right at the end of the watch, ♂832, ♀649, and probably ♂830 as well brought in acorns from the south and stored them!

So there are still a few Live Oak acorns on the trees here still.

13 April

Walking by at 1230, the ^{power struggle} granary census of the past 4 days (see Susana's notes) has flared up again. ♀809 formerly of CV Grade, appears to still be in tenuous control, and at least has the cooperation of the two ♂♂. But 2 Gazebo ♀♀ (819 + 820) at 1800 ♀ (♀786), 2 ♀NB, and surprisingly, ♀695 of Dark Hollow (what is she doing here?) are giving ♀809 a go. See Susa's notes for more details.

15 April

Beth + I here relieving Susana at 1000. Moderately chaotic, but the story at 1030 appears to be ① ♀808 + ♀809⁰⁹ from CV Grade are in control of the central part of the granary. They seem to be friendly with the ♂♂, especially ♂830.

② Two Gazebo ♀♀ (♀♀819 + 820) are here hanging out in the tree adjacent to the granary. I saw ♂492 open wing waltz with them on one occasion, so they could be trouble

22 Feb 1983 Blomone granary census 1320-1520

1320 ♀649 ♂492

25 ♂492 WS

30 ♂492

35 "

40 ♂492 WS

45 ♂492 ♂830

50 ♂492 WS

55 ♂492 WS ♀649

1400 ♂492 MA

05 ♂492 MA ♂832

10 ♂492 WS ♀649

15 nobody

20 ♂492

1425 ♂492

30 ♂492 MA

35 ♂492 MA

40 ♂492 WS ♀649 ♂830 ♂832

45 ♂492 WS ~~♀649~~ ♂830 EA ♀649

50 ♂492 ♀649

1 55 ♂492 ♀649 ♂830

15 00 ♂492 WS ♂830

05 ♂492 WS

10 ♂492

15 ♂492

20 nobody

♂492 1417 Unid Passerine 1

♂492 1455 Y-r warbler 1

♂492 1505 Junco 1

23 Feb 1983 granary census 0810-1010

0810 nobody

15 "

20 "

25 ♂492

30 ♂492

35 all 4 birds

40 all 4 birds

45 all 4 birds

50 all 4 birds

55 nobody

0900 ♂492

05 ♂492 WS

10 ♂492 ♀649

0915 ♂492

20 ♀649

25 ♂830 EA ♀649 ♂832

30 ♂492 WS ♂830 WS ♀649

35 ♂492 WS ♀649

40 nobody

45 ♂492 ♀649

50 ♂492 ♀649 ♂830

55 ♂492 ♀649

1000 ♂492

05 ♂492

10 nobody

Storage

♀849 1

♂830 1

♂832 1

1983

R.L. Mumme

3

Melanerpes formicivorusBlomone

(15 April) ③ All 3 1800 ♀♀ are also here (♀♀ 755, 786, 787), but are relegated to a top portion of the granary and some of the trees to the south. At least 1 or 2 ♀NB are here, as well. So far, nobody seems to be making much progress in taking control, but the CV grade ♀♀ seem like the best bet.

29 June

** GROUP UPDATE **

- ① ♀649 shot 9 April
- ② ♀809 moved here from CV Grades 9 April
- ③ ♀808 moved here " " " 16 April

Blomone ABANDONED Fall 83

M. formicivorusBlome one Nest Record

22 May Philip finds nest in 1982 first nest hole.

7 eggs

① 23.6 x 20.0

② 26.7 x 20.5

③ 26.1 x 20.5

④ 24.5 x 20.0

⑤ 25.0 x 20.1

⑥ 23.5 x 19.9

⑦ 26.2 x 20.5

Looks like skew is 4-3, but we have no idea which ♀ (♀808 or ♀809) laid which eggs.

23 June Banded 3 healthy nestlings, now Juvs. 920-922:

See capture records

~~1983~~

R.C. Mumme

18

1983

Melanerpes formicivorus

Blom ~~One~~ Two

21 Feb 1235, I take a peek here and see Light / Dark-light, which I presume is ♂846. Very few acorns are stored here, and I'd be surprised if they last through the winter.

9 May Swinging past 0830, I find ♀IVB drumming from the granary, but then chased mildly by ♂847 M/Pal-Blk. Another bird (I presume ♂846) was nearby. Nobody in any holes here.

16 June Swinging by 1730, I find a bird looking out of the low hole in the W branch of the granary. Does Blom 2 finally have a nest?

17 June Nobody looking out here at 1400.

20 June " " " " " 1100.

21 June Watching here, PM, I see ♀847 M/Red-Black, but no ♂.

Blom 2 Abandoned fall 83

Melanerpes formicivorusBlom 3

- 5 Jan Walked by here, 1230. No activity at all in the area ~~between~~ between Gazebo and Blom 3, where lots of action occurred in Dec.
- 22 May Finally find the nest here, in the "upper" of the two 1982 nest holes in the Blue Oak. I climb up at 0830 and find 5 eggs, ~ 6-7 days along in incubation, meaning that 17 June will be a good day to band here. Interestingly, 4 of the eggs were quite round but the fifth was long + very narrow. Strange.
- 16 June 1730: Banded 4 healthy 18-day old (or so) nestlings, now juvs. 910-913. Also in the nest was a dead 12-day old, that was stinking up the nest like crazy. I removed him. So all 5 eggs hatched

Blom 3 abandoned fall 83

M. FormicivorusDark Hollow23 March

Watching here on a windy, wet afternoon, 1400-1545, I actually do OK. After a good bit of work, I find
 ♂584 ^{M/B Pink}, ♀695 ^{M/}mauve/mauve, ♀696 M/or-white,
 ♂824 DBlue-or/DBlue, and ♀825 M/white.
 Missing was ♂823, but he might well be around.

7 April

Watching here, 1020-1140 for signs on nesting intentions. Nothing much really. When I first walked up, I thought I flushed a bird from last years nest hole, but I wasn't sure. No other visits to holes. ♂584, ♀695, ♂824, ♀825 all seen well, but ♀696 missing. ♂823 is certainly gone.

12 April

Informative watch here, 1240-1430. (1) I find a new hole here, and a ♂ caught in the act of working on it. It is in a fairly inconvenient place in the South tree. Rope ladder appears to be the only reasonable way of dealing with the hole.
 • (2) Once again, I find that ♀696 is missing, though ♀695, ♂584, ♂824, ♀825 all seen. Will need at least one more watch to be sure, but if she's gone, we will not have egg tossing here this year.

13 April

Even better watch today. ♀696 is here, for sure! Seen well, as were the 4 other birds (♀696 can be told from ♀825 by the former's faint left side mustache). ♂584 spent a long time working on the new hole, but (1) it doesn't look that deep yet and (2) I may have seen a bit of interest in the 82 hole as well. Must be alert here.

1983

R.L. Mummie

2

M. FormicivorusDark Hollow

- 17 April Opened the new hole here, 1630 (after flushing a bird out) and found it a longway from completion. Fairly shallow, rough bottom.
- 22 April After watching here the last 3 days, doesn't look like DH is planning to nest anytime soon. In the last 4 hrs I've not seen anybody in the new hole. I checked it yesterday, and although it was clear that some progress had been made since the 17th, the hole still has a ways to go.
- 29 April After a string of bad watches in terrible weather, I come over here at ~~11~~ 0840, + finally see some interest in the new hole. A ♀ was looking out when I arrived, and ♂584 entered, too. Will have to check the hole soon!
- 30 April Watching here for egg laying, 0615. Pretty boring. Nobody looks at the hole. 0730, I check the hole, finding it with no eggs but close to completion. A few more days of work it should be ready for eggs.
- 2 May watching again, 0610. 0720, Nothing! ♂584 looked into the new hole once, and ♀825 ate some of the dap (!) but that was it. Complete census, ♂584, ♀695, ♀696, ♂824, ♀825 all seen.
- 4 May Watching here 0550: 0710, Nothing much. ♂584 was in and out a few times (once I heard tapping from within) and ~~♀696~~ ♀696 looked in once, but that was about it.
- 5 May Looking better here, 0545-0710. ♂584 continues to make a lot of visits to the hole (He also

Melanerpes formicivorusDark Hollow,

(5 May) has the unusual characteristic of garricking from inside the hole), But ♀695 made one quick wood chip visit, and ♀696 looked in a couple of times. Lots of open-wing wakas & such here, too.

6 May 0545-0700: Boresville, man! ♂584 made one quick trip to the hole, but the ♀♀ never-glanced at it. Still a lot of garricking, chattering, intrusions, & open-wing wakas here. They seem to be having problems. Methinks I will let them slide tomorrow

10 May Been letting these guys slide lately (though I watched [bored] on 8 & 9 May, continuing to see ♂584 in the hole a lot starting here today 0600. 0700, still boring, ♂584 spent a lot of time inside working on the hole, but no visits by ♀♀.

15 May Watched here today, 0545-0700. Confusing. Yesterday Walter watched & reported The birds were going into a hole on the high, horizontal dead snag in the nest tree. Today, I see no interest in that hole, but some token interest in the usual hole, plus the 82 nest hole. Dark Hollow still has acorns, so I'm not sure what the problem is here.

17 May 0545-0700, SOS. Some interest in the usual hole (including one brief visit by a ♀) and no interest in other holes.

19 May 0545-0815: Looking better. A mustached ♀ (suspect ♀696) was looking out when I arrived, and didn't leave until 0610 (after going down a few times. Brief visits by ♀696 & ♂584, too. Will have to watch here tomorrow

0545 mustache ♀ l.o.

19 May Dark Hollow

20 May

0614 ♀ 696 e-re-s

0623 l.o.

24 s.d.

0650 ♀ 696 leaves

checked hole, C730 lra-t egg

0808 ♀ 695, first trip to hole, flies out with runt

egg carried to adjacent 82 nest tree. Could not see what happened to it.

M. formicivorusDark Hollow

20 May Finally, action! Didn't bring the tape recorder, but the general plan follows.

At 0619 ♀696 entered the hole and except for a few brief look outs, she stayed down until 0650. I checked the hole ~~at~~ at 0730 and found an adorable runt egg laid no doubt by ♀696.

By this time, both ♀696 + ♂584 had entered the hole three times each + had not removed the runt.

But at 0808, ♀695 finally entered, and though she stayed down for ~2 min she left ~~at~~ with ♀696's runt! Good! The egg was carried to the adjacent tree, but I couldn't see what happened to it there.

I didn't have calipers today, but this runt had an air cell smack in the middle of the egg.

21 May Another egg toss watch here. ♀696 lays (presumably a normal egg, but I didn't see the egg well) and ♀695 carried it out @ around 0747. The egg was carried to the adjacent tree (1982 nest tree) where I was unable to see what had happened to it. Details on back.

22 May Repeat of yesterday: ♀696 lays normal egg, ♀695 carries it out (after staying in nest ~2 min), and ♀695 fails to lay. Maybe she will lay tomorrow. Details of the laying + tossing are on back. Again, ~~♀695~~ ♀695 carried the egg to the 1982 nest tree where I was unable to determine its fate (though I'm sure it would have

21 May 1983 Dark Hollow egg laying watch

0545 start

0603 ♀696 enters

0604 ♂584, ♂824 enter

0606 both ♂♂ leave

0620 ♀696 l.o.

0621 b.d

0636 l.o

0638 b.d

0639 ♀696 leaves

♀696 lays

0603 - 0639

0654 ♀696 ~~leaves~~ enters

0658 l.o.

0701 leaves

0701 ♂584 enters

0704 leaves

0715 ♂584 enters + leaves

0733 ♀696 enters

0743 " leaves

0745 ♀695 enters

0747 ♀695 leaves carrying egg (not positive, but pretty sure

egg carried to adjacent tree, but I couldn't follow it after that)

0800 checked hole, empty

22 May 1983 Dark Hollow

0545 ♀696 l.o.

0546 leaves

0556 ♀696 enters

0617 ♀696 l.o.

0620 b.d

0620 ♂584 enters

0621 ♂584 leaves

0627 ♂584 enters

0628 l.o

0629 b.d

0633 ♂584 leaves

0633 ♀695 comes to hole

♀696 leaves

♀695 enters

0635 ♀696 leaves carrying nice normal egg, carried to 1982 nest tree

0635 ♂584 enters briefly leave

0641 ♂695 enters

0642 l.o.

0645 ♀695 leaves

checked nest 0700, empty

M. formicivorusDark Hollow

23 May Ho Hum, another day, another egg tossing at Dark Hollow: ♀696 lays, ♀695 tosses. Details on back. The only thing of special interest is that ♀695 came out with the egg while ♀696 was still down in the hole. Hardly seems like there was enough room for that kind of stuff. I wasn't sure what happened to today's egg, as I was busy watching the action at the hole.

24 May Egg tossing could be over here. Both ♀♀ lay, 1 a runt (① 19.1×15.2) almost certainly laid by ♀695 (her first egg). This runt totally lacked an air cell. The normal egg laid (presumably) by ♀696 was ② 24.5×20.4 , had a slightly off-center air cell, ~~flat~~ plus a small calcium chip.

I then watched from 0715 to 0900, during which time ♀695 had 4 good chances to throw out her runt and ♀696's normal egg, but she never threw it out. I gave up the watch at 0900,

25 May Things are over with here. Only one egg laid today almost certainly laid by ♀695, ③ 25.5×19.6 , heavily marbled, with no conspicuous air cell. See back for details. 3 eggs so far then. Both of yesterday's eggs still present.

26 May Nest check, 1815. 5 eggs:
 (4) 25.7×20.2 ^{very} small, asymmetrical air cell (♀695?)
 (5) 25.2×20.4 normal slightly asym. air cell (♀696)

Both eggs were heavily marbled.

27 May 1800, (6) 25.7×20.0 very small asymmetric air cell (♀695)

23 May 1983 Dark hollow egg laying

0540 ♂584, ♀695 in hole

0545 both leave

0607 ♀696 enters

0611 ♂584 enters

0613 ♂584 leaves

0616 ♀696 l.o.

0619 b.d.

0629 ♂584 ♀695 enter

0629 ♀695 leaves carrying egg (♀696 still in hole)

0639 ♀696, ♂584 leave

0643 ♀696 enters

0706 ♀696 l.o.

0730 checked hole, empty

♀696 lays

0607-0639

24 May 1983

0545 ~~both in hole~~ ♀695 l.o.

0559 ♀695 leaves

0611 ♀696 enters

0614 ♀695, ♂584 enter

0622 ♂584 leaves

0624 " enters

0625 " leaves

0626 ♀696 l.o.

0630 " b.d.

0634 ♂584 enters

0635 ♀695 l.o.

0635 b.d.

0645 ~~♀696~~ ♂584 leaves

♀695, ♀696 leave

checked hole 2 eggs.

0715 back watching

both ♀♀ lay

♀696 0611-0645

♀695 0614-0645

0900 ♀695 made 4 long visits, did not toss.

25 May 1983

0545 ♀695 looking out

0551 b.d.

54 ♀695 leaves

54 ♂584 enters

58 ♂584 l.o.

59 b.d.

0604 ♀695 enters, ♂584 leaves

0626 ♀696 enters, ♂584 enters

♀696 leaves

0628 ♂584 leaves

0632 ♀695 l.o.

0633 b.d.

0640 ♀695 leave

0642 ♀696 enters

0647 ♀696 leaves

♀695 lays

0607-0640

M. formicivorusDark Hollow

6 June Nestcheck, 0645. Hatching, and my timing is perfect. Eggs (2) + (5), Both belonging to ♀696 (her only two eggs) have hatched. Both marked with Blue Sharpie on the right leg. Egg (3) is pipping, and eggs (4) + (6) look like they should hatch. Good deal! ♀696's eggs must have a shorter development time. This also underscores why it's important to throw out your own runt eggs, as ♀695 has fallen behind here

7 June Nestcheck, : 4 nestlings: Eggs (3) + (4) have hatched (marked with Blue Sharpie^{Left leg}) and (6) is pipping. ♀696's 2 young remarked with Blue sharpie on right leg.

11 June 1100 : 5 nestlings, 10-the way out
 D Grn - C Pink (Right Blue Sharpie ♀496)
 Yellow - Black (" " " ♀496)

28 June Big disappointment. Here to band the young at 1600, I find the nest completely empty. Probaby failed ~ 15 June or so. What's more, Dark Hollow still has acorns. Hard to figure what happened here. Predation? I should watch here tomorrow AM.

June
29 ~~June~~ ** GROUP UPDATE **

① ♂823 disappeared ~~10~~ 28 Jan ± 6 weeks
 (Last seen on 3 Dec⁸², certainly gone by 23 March)

30 June Watching 0800 - 0945: No sign of a new nest, and only ♂584, ♀695, ♀696 seen (repeatedly). Having doubts about the presence of ♂824, and ~~even~~ especially ♀825.

M. formicivorusDark Hollow

3 Aug Slow watch, 0700 - 0900: ♀695 + ♂584 both seen pretty well, and at least a third bird present as well, (♀696?) but that may be all.

Dark Hollow ABANDONED fall 83

Melanerpes formicivorusCorral Viejo CanyonHastings Reservation5 Jan

I come over here, 1100, and try to watch OK Corral in the hopes of finding some banded birds. 1200, No such luck. Simultaneously in the granary area I see 5 unbanded ♀♀ and 1 unbanded ♂! Two or more of the ♀♀ look like first year birds (dark eye, short bill). This may be all the birds in the group.

7 April

In light of CV#2's incredibly early nest last year, I think it a good idea to walk over here at 1020 and say hello to the holes. Nobody in last years first nest, but in the "holey" Blue Oak above the granary, I flush a woodpecker out of a "new" hole in a stub on the uphill side of the tree. I wasn't sure which hole, because there were several in the stub, but it bears further watching.

26 April

A tour of Corral Viejo groups, 1730-1830, produces the following info.

- ① Flushed birds out of the 1982 nest holes at both CV#1 + CV Grande
 - ② Flushed a ♀ NB out of the roost hole where we ambushed at OK Corral
 - ③ Nothing at Blom 3 and (surprisingly) CV#2.
- Will have to check here again to see if we have nests here

28 April

Open-ed the hole at CV Grande (after making a deeper cut) and found 5 eggs (including 1 partially-buried runt) ~ 4 days incubated meaning 28 May would be a good landing date. Did not flush anybody out of the hole at CV#1, but I did at OK Corral, meaning that they must certainly have a nest.

22

M. formicivorusCorral Viejo Canyon

2 May Went up to open the hole at OK corral, but ① I didn't flush anybody out when I walked up ② I found that the hole takes a strange dog-leg, so I couldn't see the bottom. Also, because of the dog-leg, I had the rope ladder in a poor position to work on the hole. Consequently, I will wait & be sure there is a nest here before I open this hole.

4 May Did the CV canyon tour, 1500: Nobody looking out of holes at either CV #1, CV #2, or OK Corral (has that nest, if it ever was a nest, failed?). A bird was in the nesthole at CV Grande, and as I walked up to Blom 3, I saw a ♀ briefly enter the "upper" hole in the 82 nest tree. In short, not a very successful trip over here.

10 May After flushing a bird out of ~~the~~ a different, easier hole at OK Corral (same tree), yesterday, I come back and open the hole today & find 5 eggs, ~ day 6, meaning 6 June would be a good day to band.

17 May I walk by OK Corral's nest, 0800, and though I don't flush anybody out, I do hear baby noises from within, so it would appear that the eggs have hatched.

CV2 I watched a bit, checked the holes, & still found no evidence of a nest yet.

27 May Banded a disappointing 1 nestling (J875) at CV Grande. See capture record.

4 May Banded 4 healthy, old (~ 26 days) nestlings at OK Corral. See cap recs. J883 - J886

M. formicivorusCorral Viejo Canyon

20 June Walking by CU #2, I see ~~the~~ two juveniles that fledged from the missed first nest, but no sign of a second nest. Nobody in holes at CV Grange, either.

See Sandy's + Susa's notes regarding fall abandonment of CU groups.

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Melanerpes formicivorus

Westgate

22 March 83 Successful removal ambush here at 0520, as we net and remove ♀599 from the group. By 1000, Susan reports a full fledged power struggle going on.

1145, Moderate chaos. At least 12 intruders here, 11 ♀, 1 ♂. IDed participants include at least 3 UB ♀ (on the periphery), ♀685, ♀785, ♀789, ♀791 (from Gate; ♀685 and ♀785 most conspicuous), ♂790 (from Gate; seen briefly by Pam), plus ♀687 and ♀798 ^{M/Ogreen - LPink} _{LPink - Ogreen} from ARF2, cooperating with another ♀NB (!)

At this moment, the 2 ARF 2 sisters and the UB ♀ appear to have the upper hand. They have control of the central granary area, and are making with ♂58 and ♂692. The gate ♀♀, especially ♀685 + ♀785, are also in the granary, but more to the side, and appear to be being chased by ♂692. The remaining ♀NB appear very much peripheral. Light intermittent rain falling throughout.

♂692 of Wgate seems to be taking the main role in chasing ♀♀ around; One-legged ♂58 is mostly laying low.

1345, 2 hr later, things are changing:

① A cooperating group of 4 ♀NB have taken over the W side of the granary tree. They are also beginning to score points with ♂692 + ♂58: 1 hr ago, both ♂♂ would occasionally peck and give chase to those

Melanerpes formicivorusWestgate

(22 March) ♀♀, but that seems to be declining as they exchange wakas with some regularity.

② The 2 ARFtoo ♀♀ cooperating with the ♀NB are losing ground. They still control the high central stub, but the ♂♂ are less friendly with them. Even saw ♂58 take a peck at ♀798. Also, the ♀♀ do not seem to be chasing anyone, playing a much more "defensive" game. Not a good sign. The worst sign, however, is that ♀687 is either gone now or keep an extremely low profile. I saw her fleetingly at ~ 1300, but I've not seen her in an hour now. Is she injured, dead, or given up?

③ The Gate ♀♀ are still here sporadically, but seem undecided about whether to fight for Wgate or defend gate. They are shuttling back and forth, as "spillover" fighting erupts now & again at Gate.

④ Saw a ♂NB (only 2nd ♂ intruder) fighting with ♂790 of Gate on the western periphery.

23 March 0820, the power struggle is over! 5 unbanded ♀♀ are in complete control of the granary, and quite friendly with the males. The ♀♀ are expanding their control outward from the granary, and the only potential rivals are relegated to "the western frontier".
0845, I find a ♂NB and a ♀NB hanging out together in the sycamore down by Maggies. One of the Wgate birds (I suspect ♂692) came down and chased them some,

1983

R.L. Mummie

3

Melanerpes formicivorusWestgate23 March

driving them down to the Valley Oak in front of the Hallisey driveway. 0850, looking "cut + dried". No intruders around at all. Constant greeting, open wing wakas coming from the granary. ♂58, ♂692, and 5 ♀NB all seen well.

0900, actually 2 ♂NB and a ♀NB hanging around by Maggies and the W end of corral field. They are no threat, however, and appear to have given up.

5 April

Ambushed this AM, caught 1 ♀NB (now ♀855) and ♂692.

** GROUP UPDATE **

① ♀599 removed 22 March 1983

② 5 ♀NBs moved here 22 March 1983

20 May

Opened new hole in low stubs, finding 4 eggs See nest record.

21 May

Very unpleasant finding here. Here with Philip to band ~1630, we find ① the fragile, thin piece of cut had fallen out of the hole + was lying on the ground.

② The nest was empty, even though Philip had seen the adults feeding young earlier this month. I suspect predation but whether the piece falling out led to predation or the predator knocked out the piece, we will never know.

Regardless, it is probably best to exclude Wgate from rep. success calculations.

29 June

** GROUP UPDATE **

① ♀855 + ♀856 Banded here 7 + 12 April, respectively

② ♀854, ♀856, 2 ♀NB Move to Gate 830416.

1983 R. C. Munne

4

M. formicivorus

Westgate

1 Aug

Good short watch here: ♂58, ♂692 + ♀855 all seen well during a short watch.

Westgate ABANDONEID fall 83

1983 R. C. Mumme

M. formicivorus

Westgate Nest Record

20 May 1030, opened new hole in low nest stub:
4 eggs, fresh (probably day 1 or 2, see
Denise's notes for 19 May)

21 June 1630, Found nest empty + cut piece lying on ground
See notes:

~~1983~~ R.C. Munne
1983

1/2

Melanerpes formicivorus

Gate

6 March After big storms, the hanging limb here finally fell ~ 1 March. Today, with Susan + Phillips help, we manage to salvage a fair number of storage holes + acorns and return them to the tree.

5 April ** GROUP UPDATE **

① ♀519 removed 15 March 1983.

16 April Wild things going on here: At 0845 I come by + find a POWER STRUGGLE in progress. Amazingly, 4 new ♀♀ are in control of the main storage area and waiting with ♂627 a lot (+ some with ♂626). But the 4 ♀♀ are ^{4 of} the presumed ⁵ 4 that moved to Westgate: ♀854 ^{LGn-yellow / L Pink} M / L Pink, ♀856 ^{Yellow-Red / M} " / Black, and 2 ♀ NB.

♀♀789 + 791 of Gate here, but seem to be relegated to the uppermost branches of the granary.

Saw ♀789 chased around a bit by a ♀NB!

Unfortunately, the key bird in all this for Susan is ♂790, + he seems not to be around.

19 April Watching here 1110-1210. Seems to be all over.

The 2 ♀NB, ♀854⁴, ♀856 have total dominion over the granary. They are waiting with ♂626, ♂627, + (fortunately) ♂790, though the last still seems not in the mainstream. At least ♂790 was seen twice in the granary. The ♀♀ helpers seem to have been excluded from the granary. I saw ♀788 + ♀791 perched in the VOs in the flat between Gate + Wgate, and I got the distinct impression that other birds were there, too.

M. formicivorusGate

17 May Susan ambushed here, catching 5 birds, including one UB ♀ (now ♀ 859) that had to be sawed out at 0930. When the bird was finally extricated, Susan found a runt egg at the bottom of the hole. However, the egg could have been laid ^{by} the other 2 ♀♀ in the ambush, ♀854 + ♀856. See Susan's notes.

18 May Denise reported 3 ♀♀ (♀854, 856, NB) making visits to the Square-nail flat Live oak hole this AM. 1015, I climb up + peep in + find 2 eggs
 ① 25.4 x 18.7 ② 26.2 x 20.0

Don't know who laid or whether they will be tossed or not, but we'll soon know more.

Back at 1730, both eggs are gone! Someone (or something) has tossed here.

19 May Susan + Denise report no laying, no interest in holes.

22 May Philip reports laying + tossing. See his notes

23 May " " " " " " " " " "

24 May Philip + Denise report " " " " their notes

25 May Philip reports 3 ♀♀ all lay today (a new record!) the ♀ that did yesterday's tossing doing today's laying first. See Philip's notes.

26 May Checked the hole, 1200. 5 eggs, so only two ♀♀ laid today. ④ 27.4 x 20.5; ⑤ 26.9 x 19.9

27 May Hole check 0930: 6 eggs, only 1 today
 ⑥ 26.0 x 19.8

28 May Susan reports 8 eggs

Susan reports checking hole ~ hatching, only 2 nestlings other eggs missing.

M. formicivorusGate29 June

** GROUP UPDATE

① ♀854, ♀856, 2 ♀NB move here from Wgate on
16 April 1983

② ♀859 banded here 830517.

1 Aug

Brief watch here. I see ♂627 ^{LPi-K-DBlue} ♀NB
 ♀859 ^{Red M / Red-Black} plus both of the recently-fledged
 juvies, 927 ^{Blk-whk / OPink} and 928 ^{white-Or / white.}

Gate ABANDONED fall 83

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Melanerpes formicivorus

Pipeline

17 Jan

** GROUP UPDATE **

① ♂660 (Plaque), ♀♀703 + 704 founded Pipeline
15 Sept 1982 ± 2 weeks.

♂660 last seen at Plaque 16 Aug, gone by
5 Oct. ♀♀703 + 704 first seen near Pipeline on
4 Oct.

7 March

Watching here, 1445. Pipeline is pretty impressive, now.

The residents have drilled ~100 storage holes in the
original sycamore to supplement our artificial limbs

What's more, the granary looks like its essentially full.

A second roost hole has been constructed in the granary;

1630 The birds here are still hard to see. ♂660
DBlue-wht (N)/M put in a brief appearance in the granary,
but that was it.

23 March

Trying 0910. Unfortunately, I flushed two birds as I
walked up, much as I tried to avoid doing that.

I'm sitting, fairly well hidden, under a Live Oak NW
of the granary. The granary here is jammed full of acorns,
All (or nearly all) Live Oak.

0920, Quick success ♀703^{Yellow / Mauve} and ♀704

CArk / Bk put in brief appearances, following a few garricks
from S of the granary. Don't know who was doing that

0935, ♂660^{DBlue-wht (N)/M} also appears, so that

wraps up a full ce-sus.

5 April

walk by at 1045, I flush 3 birds out of the lower of
the two granary holes! Looks like that hole is
a likely candidate for nesting.

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M. formicivorus

Pipeline NEST RECORD

- 10 May Checked hole, 1730: 4 eggs, ~ 4 days incubated
- ① 23.9 x 18.6
 - ② 23.4 x 18.0
 - ③ 24.02 x 18.7
 - ④ 24.1 x 18.7
- 18 May Bird looking out of hole as I drive by, 1545
- 6 June Banded 3 old, healthy nestlings here, now JUVS,
887-889

Melanerpes formicivorusPipeline

2 May Nobody in the holes here at 1400

10 May After finding a bird looking out of the low granary hole here, I come back at 1730, flush two birds out, then find a disappointingly small clutch of four eggs ~ 4 days incubated. Did both ♀703 & ♀704 lay here, or did only one? Has one of the two disappeared, leaving just one? We need a good watch here
(see Denise's notes; She reports both ♀♀ present)

Pipeline ABANDONED fall 83

Melanerpes formicivorusWarp 517 Jan

** GROUP UPDATE **

- ① ♀629 disappeared 17 April 1982 \pm 1 month
 Last seen by Alan 6 March, Gone for sure by 28 May
- ② ♀702 disappeared 7 June \pm 1 week
 Last seen 28 May, ~~gone~~ missing 17 June
- ③ ♀♀703 + 704 ^{moved to} ~~abandoned~~ Pipeline ~ 15 Sept 1982
 \pm 2 weeks.
- ④ ♀NB[877] moved to warp 5 ~ 1 Sept 1982 \pm 1 month
 First seen here by Alan 6 Oct.

Worth noting here that we don't have good information on whether ♀877 arrived before or after ♀703 + ♀704 moved to Pipeline. Thus, we don't know what movement precipitated the other

23 March

Walked up here on a lark at 0950 in the slim hope that I might see some birds. I actually do OK. I flush 3 birds when I walk up, two of which prove to be ♂636 Lgreen/Dbrn-Lbrn and ♀NB. I didn't get a look at the 3rd bird, but ♂528 seems likely. 1025, I suspect the 3rd bird is ♂, which further suggests ♂528

2 May

Stroll up here to say hello to the holes 1430. Nothing up.

10 May

1245, I find a bird looking out of the lower Black Oak hole. Will have to check it soon!

19 May

Finally get up here with Philip to open the hole, I find two pin-feathered, eye-opened nestlings, ~16 days old. Will have to band them ~25 May

WARP 5 ABANDONED Fall 83

1983 R.L. Mumme

M. Formicivorus

Warp 5 NEST RECORD

19 May Opened hole in Black Oak (old 81 nesthole), 1130:
2 nestlings, ~ 16 days old

24 May 1400, Banded 2 healthy nestlings, now Juvs. 863 + 864

Melanerpes formicivorusRoad 117 Jan ** GROUP UPDATE **

① ♂577 + ♀806 found DOR 25 Aug 1982.

21 March Watching, 1020: 1110, Complete census! ♂486, ♂294, ♀269, ♀383, ♀578, ♂579, ♂580, ♂672, ♀804 all seen well. Only other thing of note is that the 81-82 nest limb (Black Oak) broke below the nest hole, at the lower hole that was never used.

Fortunately, the nest looks OK.

31 March As it is definitely becoming spring (warm, mostly sunny AM), I start a watch from PO Hill at 0930, looking for signs of mate guarding or interest in holes. I notice that a top chunk of the 1^o granary has broken off, right at the spot of the upper of the two roost holes there.

1040 Doesn't look like much is happening. Didn't seem like ♂486 was showing much interest in ♀269. The birds were hanging out a lot around the Black Oak nest hole (eating catkins, mostly) but nobody looked at the hole. Still, it's possible that they could be interested in the low hole in the sycamore, since I couldn't see it.

1130, After seeing Rd 1 birds hanging around in a sycamore adjacent to the creek (Arnold side) ~~60~~ m downstream from the bridge, I find what appears to be a fresh hole start. Not too high, in a live part of the tree, with a nice live branch below for standing on. Will have to keep an eye on it. Unfortunately, the hole faces south, not visible from PO Hill.

Melanerpes formicivorusRoad 14 April

Spring granary census + watch for signs of nesting, 0745-0945. ♀269, ♀383, ♂486, ♂244, ♂579, ♂580, ♂672 all seen. ♀578 not seen, and ♀804 seen fleetingly, but not convincingly. The important news is that the birds are indeed excavating a new hole in the new sycamore along the creek. Also, ~~but~~ it looks like a bit of mate guarding is getting underway here. ♂486 seems to be following ♀269 fairly closely, although it looks like guarding is not in full swing. Also, I think ♂486 spent a fairly long bout in the hole by himself, suggesting that guarding is not completely sure, yet.

Back in the afternoon, I climb up (not too bad, with rope ladder) and saw open the new hole (a little thick, but not too bad), to find that the hole has a ways to go yet. Not very deep, very narrow inside, and a pointed bottom. Still should be some time, if they use this hole. (Possible my opening will scare them off).

5 April

A quick look 1015, I find a ♀ (♀269?) looking out of the new hole, so I appear not to have scared them off.

6 April

Granary census, 1415-1615. Lots of action around the new hole, but not that much action at the granary. ♂486's guarding of ♀269 is still quite weak, if indeed he's guarding at all.

7 April

Checked the new hole 1440, lots of progress has been made! should be ready for eggs within a week.

4 April 1983

0745-0945

Road 1 Oratory census

0745 nobody
0750 ♀383 2°

55 ♂672 1° | ♀383 2°

0800

05 ♀269 WS | ♂486 ♂672 ♂580 1° |

10 ♀269 ♂486 ♂294 ♂672 1° |

15 ♀383 ♂579 ♂672 1° |

20 ♂486 ♀269 ♀804 1° | ♂580 2°

25 ♀804 1° | ♂580 2°

30 ♂579 1° |

35 nobody

40 ♀383 ♂294 1°

45 ♀269 ♀383 ♂486 WS 2° | ♂294 1°

0850 ♂486 ♂294 ♀269 1°

55 " " "

0900 ♂579 ♂486 ♀269 1° | ♀283 WS 2°

05 ♀383 WH 2°

10 ♀269 1° | ♂486 2°

15 ♀269 ♂486 ♀383 1°

20 nobody

25 ♂579 ♂294 1° | ♀383 2°

30 ♂579 WH 2° | ♂294 1°

35 ♂579 ♀269 WH 2° | ♂294 1°

40 ♀269 ♂579 WH 2° |

45 ♀269 2° | ♂579 1°

0817 ♀383 + ♂579 stel Jay 1

0850 ♀269, ♂486 AW? 2

0855 ♂294 G Squirrel 2

0910 ? AW? 2

6 April 1983

1415 nobody

20 "

25 ♂294 EA 2°

30 ♀269 EA ♂486 2°

35 nobody

40 "

45 ♂580 WS 2°

50 ♂580 2°

55 nobody

1500 ~~♂486 ♂579~~ nobody

05 ♂579 ♂486 2°

10 ♂580 1° | ♀269 ♂672 2°

15 nobody

20 "

25 "

1530 ♀269 2°

35 ♂579 ♂580 WH 2°

40 ♂579 MA ♂580 2°

45 ♀269 ♂580 2°

50 " "

55 ♂580 2°

1600 "

05 nobody

10 "

15 ♀269 1°

defese

1507 ♂294 AW? 2

1510 ♂486 AW? 1

1983

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3

Melanerpes formicivorusRoad 1

- 10 April Watched here, 0645-0730, saw no interest at all in the hole, though checking it at 0745, found it deep + wide with a good carpet of chips.
1100, routine granary census after seeing a bird looking out of the new hole. Complete census: ♂486, 244, ♀269 ♀383 ♀578, ♂579, ♂580, ♂672, ♀804 all seen well.
Lots of traffic to + from the new hole, and ~~dense~~ ♂486 seems to be following ♀269 with some consistency. It should be soon!
- 11 April Watched the hole here, 0630-0745, no action.
- 12 April Watched the hole 0620-0800. ♀269 made one long trip at 0700-0725, at the end of which she left the hole carrying a huge mouthful of sand dust. ♀383 made a shorter trip at 0745-0750 and 0800-0810. I checked the hole at 0820 and found it substantially deeper (difficult even to reach the bottom now) but empty. Hopefully, soon!
- 13 April Watched 0615-0755. Two brief "wood chip visits" by ♀269, one at 0640, one at 0750, and that was it. I checked the hole at 0800, found it still empty.
- 14 April 0615-0755, one 5 min visit by ♀269 (followed by ♂486) and that was it. Checked the hole at 0815, still empty, but looking ready!
- 15-16 April Watches 0615-0755. Some wood chip removal by ♀383, but that's all.
- 18 April 0615-0755. One ♀383 was in when I arrived. A nice long (0723-0733) visit by ♀269 and ♀383 (0734-0753), but checking the nest at 0810, still no eggs.

10 April 1983 Road 1 granary census.

♂486
follows ♀269 11/

1115 ♀269 2°
20 ♂486 ♀269 2°
25 nobody
30 11
35 ♂579 EA ♂294 WS ♂486 ♀269 1° |
40 ♂579 1° | ♂294 ♀804 ♀269 2°
45 ♂580 EA ♀804 1° | ♀269 2°
50 ♂580 ♀804 ♂486 ♀269 1° | ♂294 2°
55 ♂579 1°
1200 nobody
05 ~~♂579~~ ♂579 1°
10 nobody
15 ♂672 1° | ♀269 ♂486 2°
20 ♂294 EA ♀269 WS 2° |
25 ♂579 WS ♀269 2° | ♂672 1°
30 ♂579 ♀383 WS 2° | ~~♂579 WS~~ 1° ♂672
35 ♂579 WH 2° | ~~♂579 WH~~ ♂672 1°
40 ~~♂579~~ ♀578 1° | ♂579 WH 2°
45 nobody
50 ♂579 1° | ♀383 2°
55 ♂579 1° | ♂294 2°
1300 ♂579 WS 1° |
05 nobody
10 "
15 "

defense

1132	♂579	AW?	2
1158	♂579	AW?	2

M. formicivorusRoad 119 April

Successful egg tossing watch here, as at ~~0706~~ 0706 ♀269 flew out of the hole carrying a very small round runt egg, almost certainly laid by ♀383, ⁰⁶³⁶⁻0649. Although there was some uncertainty in egg ownership, I feel ~~fairly~~ completely confident that ♀383 laid it because:

- ① ♀383 was down in the nest hole 13 min, 0636 - 0649, a very good egg laying time.
- ② The egg was very round (marble sized + shaped), as are all of ♀383's ~~many~~ eggs. I'm also fairly certain that it was a runt.
- ③ ♀269 was down in the hole only 4 minutes before flying out with the egg, and at the end of the 4 minutes, she first looked out with wood chips, suggesting that she was not thinking about laying.
- ④ ♀383 had an obvious abdominal bulge when she entered the nest at 0636. No such bulge on ♀269 when she went in at 0701.

It would have been nice to have been able to check the hole + measure the egg after ♀383's visit, but I was afraid of scaring ♀269 into laying elsewhere, as we did in 1981. However, I'm quite comfortable in saying that ♀383 laid a runt, tossed by ♀269.

20 April

Another successful egg tossing watch (with a few complications). Basically ♀383 laid ~ 0620 - 0645 (see Walter's notes) and ♀269 finally carried it out at 1050 (see Susan's

19 April 1983 Road 1 egg tossing watch

0610 start, hole empty

0636 ♀383 enters, leaves immediately with wood chips

0636 ♀383 enters goes down, with bulge in abdomen(!)

0649 ♀383 l.o.

0652 " b.d.

0653 ♀383 leaves

0656 ♀269 looks in, flies

0657 ♂486 " " "

0657 ♀383 enters

0658 " l.o., with a few wood chip fragments

0658 b.d.

0659 ♀383 l.o., leaves

0701 ♀269 enters

0705 ♀269 looks out, a few wood chips on bill

0706 ♀269 back down

0706 ♀269 leaves carrying very small round egg!

(almost certainly a runt laid by ♀383)

0712 ♀269 enters briefly, carries out big load of chips

0714 ♀? enters, leaves with big load of chips

0730 ♀269 enters

0734 ♀269 looks out, back down

0735 ♀269 looks out

0736 back down

0737 ♂486 enters

0738 ♂486 exits leaves

0739 ♀269 leaves

Hole check Nest empty

♀383 presumably
lays between 0636 & 0653

1983

R.L. Mumme

4

M. formicivorusRoad 1

(20 April)

notes). The complications are that we moved the blind much closer to the hole and this may have bothered ♀269. She made only one brief appearance outside the hole prior to 10am, and did not enter. What's more, at 1000 I discovered that she was entering the 1982 first-nest hole in the sycamore 2° granary. I climbed up and checked that hole at 1010, found it empty, left the piece off the hole (to encourage ♀269 back to the other hole), moved the blind back to its original position, and set Susan up watching the hole. ♀269 returned and removed ♀383's egg within 20 minutes.

21 April

Another day, another egg loss. ♀383 laid once again here between 0627 and 0702, and ♀269 carried it out at 0731. But, even though ♀269 returned to the nest at 0733 and stayed for $\sim \frac{1}{2}$ hour, she still did not lay herself. Maybe tomorrow? See watch details on back.

22 April

Struge watch today. Basically, Nobody came to the hole until 0812, when ♀383 went in. She laid a 24.9 x 21.0 egg at that time ~~at that time~~. (between 0812 and 0830). Philip relieved me at 0940, and at 0953, ♀269 threw the egg out. Fate of egg unknown. What's going on? ♀383's late laying (\sim 2 hours later than yesterday) suggests to me that she may not lay tomorrow. I also wondered

Road 1 ~~un~~ Mate guarding

0635 ♀269 ♂486 ♂580 2°

40 ♀269 ♂486 ♂580 ♂672 2°

45 ♀269 ♂486 2°

50 ♂486 ♀383 ♀269 ♀804 1°

55 ♂486 ♀269 ♂580 1° | ♀804 2° ♀383 2°

0700 ♂579 ♂580 ♂486 ♀269 1°

05

15 ♂486 ♀269 1°

20 " " ♀383 ♂580 ~~♂579~~ 2°

♂486 follows ♀269 HIT 1

FTF ♀383

♂580 MAF ♀269 + ♀383 1

♂580 FTF ♀269 1

21 April Road 1 egg laying

0610 start, ♀269 down in hole

0613 ' ♀269 1.0.

0615 ♀269 leaves

0627 ♀383 enters

0702 ♀383 leaves

} ♀383 lays

0706 ♀269 enters, leaves immediately (~10sec)
with wood chip

0710 ♀? enters, leaves with sig load
of wood chips

0731 ♀269 enters, leaves ~10sec with egg!

(egg carried toward granary area, but fate unknown)

0733 ♀269 enters

0735 ♀383 enters

0742 ♂486 enters

0746 ♂486 leaves

0755 ♀269 looks out, back down

0805 ♀383 looks out

0806 ♀383 leaves, ♀269 leaves

0823 ♀383 ~~leaves~~ enters, leaves with wood chips

0824 ♂579 enters

0829 ♀383 enters, ♂579 leaves

0847 ♀383 looks out

0857 ♀383 leaves

0930 check nest EMPTY! ♀383 laid today, tossed by ♀269.

1983

R. L. Mumme

5

Melanerpes formicivorusRoad 1

(22 April) if ♀269 might not be laying in a different hole. But I came back + watched here from 1445-1545 this afternoon, and saw ♀269 ~~show~~ show no interest in any other holes (the 81-82 hole appears to be a starling nest, and I checked the 82 first nest hole at 0915, finding it empty). Furthermore, ♀269 paid a nice long visit to the hole at 1500, so it is clearly the hole she will eventually lay in. What will happen tomorrow?

23 April ♀269 laid a runt egg today, and threw it out herself later in the day (see ^{Walter's} Denise's notes, too). Details of the egg watch are with Walter + Denise

24 April ♀269 laid a normal egg today, not thrown out by anybody. Details of the watch are on the back. Denise + I gave both ♀♀ plenty of opportunities to toss it before calling it quits.

25 April Walter reports both ♀♀ laid at Road 1 today, taking total clutch to 3. See nest record

26 April Checked hole 1530: 5 eggs, 2 new ones marked + measured. See nest record.

27 April Checked hole, 1630: 7 eggs. See nest record

28 April Checked hole, 1200 8 eggs " " "

1 May Watching above ground, 1330, hoping to confirm that ♀578 is indeed still here! 1355. Success, ♀ ~~578~~ 578, yellow/wh. Cb. with known breeding experience last year, here at Road 1, known not to have laid eggs (at least not 8 of the 13 laid!) ^{♀269, ♀383, ♂486 also see}

24 April Road 1 egg laying watch

0620 start watch

0641 ♀269 enters

0649 ♀383 enters

0656 ♀383 leaves

0700 ♀383 enters, leaves with woodchip

0705 ♀269 leaves, ♀383 enters

0710 ♀383 leaves

0723 ♀383 enters

0745 checked hole after flushing ♀383

♀269 lays

25.5 x 20.2

(Denise + I watched both ♀♀ enter the hole several times, no egg tossing).

1983

R. L. Munne

Melanerpes formicivorusRoad 1 NEST RECORD

- 19 April ♀383 lays runt egg in new sycamore hole, thrown out by ♀269. Egg not measured, fate of egg not known.
- 20 April ♀383 lays normal egg () removed by ♀269 at 1048
- 21 April ♀383 lays normal appearing egg (not measured), removed by ♀269 at 0731
- 22 April ♀383 lays late (0812-0830) egg (24.9 x 21.0), carried away by ♀269 at 0953.
- 23 April ♀269 lays runt egg ()
thrown out by ♀269 (see Walter's + Denise's notes)
- 24 April ♀269 lays normal egg ① (25.5 x 20.2), not thrown out by anybody
- 25 April Walter reports 2 more eggs (total clutch now = 3)
② 24.8 x 20.3 (♀269?)
③ 24.8 x 20.7 (♀383?)
* slight pip damage noted 1 May
- 26 April Nestcheck 1530, 5 eggs
④ 25.3 x 20.1 (♀269?)
⑤ 24.3 x 20.3 (♀383?)
* disappeared before 1400, 1 May
- 27 April Nestcheck, 1630: 7 eggs
⑥ 25.6 x 19.7 (♀269?)
⑦ 24.7 x 20.7 (♀383?)
- 28 April 1200, 8 eggs ⑧ 24.8 x 19.9 (♀269?) Failed to hatch
(~~egg~~ ⑥ had been buried in woodchips, I extracted it).
- 1 May Nestcheck, 1400 7 eggs: egg ⑤ has disappeared, making skew 5-2. Egg ③ slightly damage (1 mm diameter pip, but probably OK.

11

124
6

2850

1983

R.L. Mumme

M. formicivorus

Road 1 Nest Record (continued)

8 May

Nest check, 1830. Hatching

- 3 Nestlings (presumably from eggs ①, ② + ④)

Egg ③ Damaged at last check missing + presumably failed to hatch. Egg ⑥ pipping, Egg ⑦ starting to pip, egg ⑧ damaged, obviously will not hatch, removed.

10 May

Nest check, 1030. 3 nestlings, 2 from ①, ② or ④,

1 from ⑥ (the first two marked on RL with Blue Sharpie. Egg ⑦ also present, infertile.

18 May

♀ looking out of hole at 1130.

1 June

1630 Banded 1 Nestling, Juv. 876.

See capture record.

1983

R. L. Munne

6

M. formicivorusRoad

(1 May)

The bad news is that I checked the hole at 1415 and found only 7 eggs! Egg #5 has disappeared, for reasons unknown. Damaged? House Wren? Snake? Who knows. Egg (5) was apparently one of ♀383's, so the current skew is 5-2. What's more, egg (3), also of ♀383 has a slight chink in it, meaning it may not hatch. Could be a strong skew in young fledged here.

8 May

checked nest, 1830: Hatching, see nest record.

10 May

checked nest, 1030: 3 nestlings, plus egg (7) that failed to hatch. Found hatching fragments of eggs (1) & (4), leading me to suspect final skew is 3-0 in favor of ♀269. One of the 3 nestlings marked with blue sharpie on 8 May was missing.

1 June

1630, Banded a disappointing 1 nestling

5 June

Granary census, 1415-1615, o-back. Routine. Birds doing a bit of sappecking from the Live Oak behind the 1^o granary. ♀269, ♀383, ♂486, ♀578, ♂579, ♂580, ♂672 all seen well. Only ♂294 + ♀804 missing.

6 June

Granary census, 0810-1010: Same birds as yesterday, plus ♀804 seen, too meaning only ♂294 is missing. Best thing was that a ~3 foot gopher snake was in the middle of the primary granary, being mobbed fairly vigorously by several birds, especially ♂486, until the snake took refuge in a hole. The breeding ♀♀ and ♂ helpers also mobbed with some enthusiasm. Though ♀578 + ♀804 were around, they didn't do much other than approach a few times.

Road / granary censuses

5 June 1983 1415 - 1615

1415 ♀383 2°

20 nobody

25 ♀269 2°

30 ♂672 2°

35 ♀269 2°

40 ♀269 ♂486 2°

45 nobody

50 ♂579 ♂672 1°

55 ♀383 1°

1500 ♂579 EA 1° ♀578 2° ♂672 1°

05 nobody

10 ♀269 2°

15 ♀269 2°

20 ♀269 1°

25 ♀269 1° / ♀578 2°

1530 ♀383 2°

35 ♀383 2°

40 ♀383 WS 2°

45 ♀383 ♂580 WS 2°

50 ♂579 2°

55 nobody

1600 ♂672 WH 10' / ♂580 2°

05 ♂672 1°

10 ♀578 ♀383 2° / ♂672 1°

15 ♀383 WS ♀578 2° / ♂672 1°

defense

1518 ♀269 Plaintiff 2

6 June 1983

0810 - 1010

0810 ♀269 2°

15 ♀269 2°

20 nobody

25 ♀269 2°

30 ♀269 2°

35 ♀383 2°

40 ♀269 2°

45 ♀269 2°

50 ♀383 2°

55 ♀383 2°

0900 ♂486 2°

05 ♂486 ♀269 ♂672 1° /

10 ♂486 ♀269 ♂672 ♀804

mobbing snake!

0915 ♀269 ♂672 WS ♂486 ♂579 1°

20 ♀269 ♂672 ♂579 / ♂486 WS 1°

25 nobody

30 ♀383 1° ♀578 2°

35 ♀383 ♂269 ♂486 ♀578 ♂579 ♂672 1° mob snake

40

45 ♀269 ♂486 2° / ♀578 ♂579 ♂672 WS 1° ♀383 1°

50 ♀383 ♂579 ♂672 1° / ♀269 / ♀578 WS 2°

55 ♂580 WS ♂579 2°

1000 ♂672 2°

05 nobody

10 ♂579 2°

no defense

(other than snake mob)

15 June 1983

1055 - 1255

1100 - 1200

1055 ♀383 WS 2° nobody

1100 nobody

05 ♀383 ♂876 2°

10 ♂486 ♂876 2°

15 ♂486 ♀269 ♂876 ♀383 2°

20 ♀383 2°

25 ♀269 EA ♂672 1° / ♀383 WH ♂579 WS 2° /

30 ♂672 1° ♀383 2°

35 ♀269 1°

40 ♀269 1° / ♂580 ♂672 WS 2°

45 ♂486 WS 2°

50 ♀269 ♂486 1°

55 ♀269 1°

1200 nobody

05 "

10 ♀383 1°

15 ♀383 1°

20 ♀383 1° / ♂580 WS 2°

25 ♀383 1° / ♂579 2°

30 ♀383 1° WH

35 ♂580 2°

40 ♀269 WS 2°

45 nobody

50 ♂579 2°

55 ♂579 2°

No defense

♂876 fledged!

1983

R.L. Mummie

7

M. formicivorusRoad 115 June

Routine granary census, 1055-1255, on back of page 6.
J876, fledged + looking healthy, was the highlight
of the watch. Again, ♂294 is missing: I'm beginning
to worry about him.

8 July

Very busy granary census here, 1125-1325: Birds doing
a lot of supsucking. Very good census. I'm just about
100% sure that ♂294 is gone for good. ♂486, ♀269,
♀383, ♀578 ♂579, ♂580, ♂672, ♀804, J876 all seen
several times each. Still some stored acorns.

10 July

Another busy granary census. Complete census, except
for ♂294 he must be gone.

12 July

Slow, hot granary census, Only ♀269, ♀383, ♂486,
♂579, ♂580, ♂672, J876 seen

18 July

Granary census, 1455-1655.

1455 ♀804 1°
1500 ♀383 1°
05 " "
10 " "
15 " "

20 ♂672 WS 1° J876 WS 2°

25 ♂580 ♂672 ♀804 1°

30 ♂672 WS 1°

35 ♂672 EA ♂579 1°

40 ♂672 ♂579 ♀578 1° ♀269 ♂580 2°

45 ♂579 EA ♀804 1°

50 ♂579 1°

55 nobody

1500 nobody

05 nobody

10 nobody

15 nobody

20 nobody

25 ♂486 J876 2° WS

30 ♂579 ♀578 J876 2°

35 ♂580 " " "

1640 ♀578 ♂J876 2°
45 ♀578 ♂580 J876 2°
50 " " " 2°
55 ♀383 EA J876 2°

Once again, complete census,
and ♂294 is certainly gone

note these.

dominance: ♂579 pecks ♀804

8 July 1983 Road 1 Summer Garry census

1125 - 1335

acorns present

1125 ♂486 1° | ♀269 2°

30 ♀269 2°

35 ♂579 ♂580 ♂486 2°

40 ♂579 ♂580 J — 1°

45 ♂580 ♂579 1° | ♂486 2°

50 ♂580 ♂579 1° | ♂486 2°

55 ♀578 J — WS { ♂579 ♀804 2°

1200 ♂579 ♀804 ♂672 ♀578 MA 1° | ♂580 WS 2°

05 ♂579 J — ♀383 WS, ♂486 ♀578 ♀804 ♂672 ♂580 1°

10 ♂672 ♀269 ♀804 EA J — WS 1°

15 ♀804 ♂580 EA | ♀269 J — ♂579 1°

20 ♂579 ♂486 ♀269 ♀804 J — 1°

25 ♂486 1° | ♀269 ♂579 2°

1230 ♀578 ♀383 ♂579 1° | ♂486 ♂580 2°

35 ♀383 J — ♀578 ♂579 ♂580 1°

40 ♀578 1° | ♀269 2°

45 ♀578 1°

50 ♀578 ♂579 1°

55 ♀578 ⁸⁰⁴ ♂579 1° | ♀383 ♂486 2°

1300 ♀578 ♀269 ♂579 J — 1°

05 ♀578 ♀269 ♂579 J — 1°

10 ♀578 ♀804 ♀269 ♂486 J — 1°

15 ♀578 ♀269 ♂579 ♂672 1°

20 ♀383 ♂579 J — 2°; ♀804 1°

25 ♂486 2°

defense

1313 ♀269, ♀578, ♂579 Scrub Jay 2

10 July 1983 0745 - 0945

0745 nobody

50 ♂579 2°

55 ♀383 1°

0800 ♀383 ♀269 2°

05 ♀269 1° ♀383 2°

10 ♀269 1°

15 ♀269 1° | ♀383 ♂579 ♀804 2°

20 ♀269 ♀804 1° | ♀383 ♂579 ♂486 J 876 2°

25 ♀269 1° | ♂486 ♂579 2°

30 ♀269 1° | ♂579 ♂580 2°

35 ♂579 J 876 1° | ♀269 ♀383 ♂486 2°

40 ♂486 J 876 ~~WS~~ | ♀383 2° | ♀804 1°

45 ♀804 ♀578 | ♀269 WS J 876 1° | nobody 2°

50 ♀269 J 876 WS | ♂579 ♀578 ♀804 1° | nobody

55 ♀269 J 876 ♀578 ♀804 ~~WS~~ | ♂579 ~~WS~~ ♂486 2°

0900 ♀269 J 876 ♀578 ♀804 ♂579 1° | nobody 2°

05 ♀269 J 876 ♀804 ♂579 1° | ♂672 ♀383 2°

10 ♀269 ♀804 J 876 1° | ♂486 2°

15 ♀269 J 876 1° | ♀578 ♂579 ♂672 ~~WS~~ ♂580 2°

20 J 876 1° | ♀383 ♂579 ♂580 2°

25 ♀269 ♀804 ♀383 J 876 1° | ♂579 ♂580 2°

30 J 876 ♂672 1° | ♂580 2°

35 J 876 ♀383 ♀804 ♂579 1° | ♂580 ♂486 2°

40 J 876 ♀383 ♀804 1° | ~~WS~~ ♂579 2°

45 ♂579 2°

defense

0755 ♀383 Plain Tit 2

0803 ♀269 " " 1

0831 ♀269 G. Squirrel 2

dominance ♀269 picks ♀804 ha-d

12 July 1983 0710 - 0910

0710 ♀383 1°

15 nobody

20 nobody

25 ♂579 ♂580 ♀269 2°

30 ♀269 2°

35 nobody

40 ♀383 2°

45 ♀269 2°

50 ♀269 2°

55 ♀269 2°

0800 ♀383 WS ♂580 2°

05 ♀269 ♂486 ♂580 2°

10 ♀383 1° | ♂580 2°

0815 ♀269 ♀383 1° | ♂486 ♂580 2°

20 ♀269 ♀383 1° | ♂486 2°

25 ♀269 1° | ♂486 2°

30 ♀269 1° | ♂486 2°

35 ♀269 1° | ♂486 ♀383 J 876 2°

40 ♀383 2°

45 ♀383 1° | ♂486 J 876 2°

50 ♀383 1° | ♂486 J 876 2°

55 ~~WS~~ ♀383 1° | ♂486 ♀269 J 876 2°

0900 ♀383 1° | ♀269 ♂486 ♂580 J 876 2°

05 ♀269 ♀383 J 876 ♂

10 ♀269 ♀383 ♂580 2°

no defense

M. formicivorusRoad 1

- 21 July Routine granary census, on back. All 9 birds seen well.
- 22 July Final routine granary census.
- 29 July Patty of Mammalogy Class finds J876 DOR in between Road 1 + Finch. About 30 feet closer to Finch was one of the a-banded "Finch" juveniles, also dead but not as fresh.

♂294 disappearance

Road 1 not abandoned. By fall 83, only ♂486 ad ♀269 remained.

21 July 1983 Road 1

1400 ♂486 1° | ♀269 2°
05 ♀383 MA 2° | ♂
10 ♂580 ♂672 2° | ♀578 1°
15 ♀383 1° |
20 ♀383 1°
25 ♀383 1°
30 ♀383 1°
35 ♀269 1°
40 ♀269 1°
45 J876 EA ♀804 1°
50 ♀269 1° J876 2°
55 ♀269 ♂580 1°
1500 ♀269 1°

1505 ♀269 ♀578 1°
10 ♂579 1° | ♂486 WS 2°
15 ♀383 2°
20 ♀383 1°
25 ♀383 1°
30 ♀383 1° | ♂579 WS ♀269 2°
35 J876 1° | ♂580 2°
40 J876 WS 1°
45 nobody
50 nobody
55 ♂580 ♀383 2°
1600 ♀383 1° | ♂672 2°

no defense

22 July 1983 1105-1305

1105 ♀269 1° | J876 2°
10 ♀269 1° | J876 2°
15 nobody
20 ♀269 WS J876 1° | ♂579 2°
25 ♀269 J876 1° |
30 ~~♂579~~ ♀383 1°
35 ♀383 ♀269 1°
40 ♀383 ♀269 J876 1°
45 J876 WS ♀269 1° | ♂486 2°
50 ♀269 2°
55 ♀269 1° ♂579 2°
1200 ♀269 1°
05 ♂579 WS J876 1°

1210 J876 1° | ♂579 2°
15 J876 1° | ♀518 ♀383 2°
20 ♂579 2° |
25 ♀269 ♂580 1°
30 ♀269 1° | ♂579 2°
35 ♂579 ♂672 WS 1° | ♀383 2°
40 ♂672 WS ♂579 1° | ♀383 2°
45 ♂580 ♂579 ♂672 ♀578 1° | J876 2°
50 ♀383 ♀578 ♂579 1°
55 ♀383 ♀518 1°
1300 ♀383 1°
05 ♀383 1°

- dom ♀269 pecks ♂580 !

Melanerpes formicivorusFinch10 Jan

Watched here, 1130 - 1300: ♀614 and J817 are definitely gone. I see ♂63, ♂66, ♀541, ♂542, ♀543, ♂613, ♂616, and ♀816, repeatedly and ♂501 briefly. Conspicuously absent are ♂282 and ♂540, usually two of the more conspicuous birds. Interestingly, two of the sycamore roost holes overhanging the East bridge parking lot have fallen recently, but I found no evidence of woodpeckers in the remains. Finch birds were actively storing acorns in the Valley Oak. ♂66 and ♀543 seemed especially busy.

17 Jan

** GROUP UPDATE **

① ♀⁶¹⁴~~614~~ disappeared 16 July ± 2 weeks.

Last seen 6 July, missing 26 July

② J817 disappeared 1 Sept 1982 ± 1 month

Last seen 26 July, gone by 5 Oct.

21 March

Watching, 1120. 1300, Slow, but not too bad: ♂63, ♂66, ♀541, ♂542, ♀543, ♂613, ♀816 all seen well + repeatedly. ♂282 + ♂540 still missing, as were ♂501 and ♂616.

31 March

Walter told me of a new hole under construction here in the usual nest limb. At 1120, I find a ♂ with sawdust on his bill looking out of a very low hole in the sycamore. Worth keeping an eye on. This hole is in the live part of the limb, so it could be accessible by free climbing, though the short extension ladder would probably be best.

Melanerpes formicivorusFinch5 April

Watching here 0945, looking for any signs of mate guarding. Doesn't look like it. 0955, ♂₆₆ working very concernedly in the Valley Oaks, moving acorns. For awhile, ♀₅₄₁ nearby, but ♂₆₆ flew away from her, returned, then failed to follow her. Certainly he should be guarding, if anyone is. 1025, also saw ♂₆₆ move away from ♀₅₄₃. Only other birds seen were ♂₆₁₃, ♂₅₄₂ (who followed ♀₅₄₃ once) and ♀₈₁₆.

14 April

Another watch, 1200-1300: Not as good as on 5 April, but still looks like nothing's happening. ♂₆₆ flew in by himself once or twice. ♀₅₄₁ & ♀₅₄₃ moved around a few times, not obviously, followed by anybody. Maybe Finch won't nest this year.

28 April

Another dull watch: ♀₅₄₁ + ♀₅₄₃ both conspicuous, but no evidence of any ♂♂ guarding one or the other. ♂₆₃, ♂₆₆, ♂₅₄₂, ♂₆₁₆ (not seen since January), ♀₈₁₆ all seen, too.

1 May

A quick look here, ♀₅₄₁ + ♀₅₄₃ hanging out in the sycamore granary, but nobody seems to be paying them much mind.

2 June

Watching 1445. Looks dull. Only interesting thing is that I clearly saw ♀₅₄₃ take several sharp pecks at ♀₅₄₁, so at least I now know that dom. relationship. ♀₈₁₆ (seen a week ago at ^{Arnold 1)} ~~Arnold 1~~, ♂₆₁₆, ♂₅₄₂, ♂₆₆ also seen. Nobody in any hole, no evidence of food carrying, etc. 1530, ♂₆₁₃ also seen, as well as ♂₆₃. so a complete census.

Finch

2 Jun don

♀ 543 pecks hard at ♀ 541

M. formicivorusFinch

22 June Watching here, 1230 - 1300: I'm convinced Finch is not interested in nesting. No evidence of guarding of ♀541, or food carrying. ♂66, ♀541, ♂613, ♀816 the only birds seen.

29 June ** GROUP UPDATE **

① ♂501 disappeared 15 Feb 1983 ± 1 month.

Last seen 10 Jan, gone for sure 21 March

② ♂282 + ♂540 moved + founded Mac Flat

24 Dec 1982 ± 2 weeks Last seen by Alan at Finch 9 Dec 82.

Definitely gone from Finch by 10 Jan

9 July 1500 Strange happenings here. On the way up to Road 1 am, distracted by calling juveniles, I find that, like Plaque, Finch seems to be in the process of adopting juveniles: One banded juvenile ^{LPink/Red-white} is the grandchild of Finch from MacFlat, so that is similar to the story at Plaque. However there are at least two (perhaps 3 or more) unbanded juveniles as well. At first I was afraid that I had missed a nest, and the JuvsUB's were Finch offspring. However, they were being chased + pecked fairly vigorously by Finch adults (similar to the way the Plaque adults ~~ignore~~ treat the Pipeline juvenile) and never saw any adults feed the juveniles. I also got the impression that the MacFlat baby was being treated more equitably than the unbandeds, further suggesting that the unbanded were not Finch offspring. Anyway, this situation bears further watching. ♂63, ♂66, ♀541, ♂542, ♀543, ♂613, ♂616 all seen well,

1983

R.L. Mumme

4

M. formicivorusFinch18 July

Heading up to Road 1 again, I see at least two juveniles (1 certainly unbanded) and hear at least one more. The two juvies were begging from a ♂ in the Valley Oak grove at 1450.

16 July

Walter found the dead, long gone (~1 year) remains of ♀614 along the creek here today. So ♀614 certainly died, did not move.

29 July

Patty of Mammalogy Class finds one of the UB Juvies DOR just below the bridge. Probably has been dead ~ 4-5 days or so.

Finch ABANDONED Fall 83

1983 R.L. Mumme

Melanerpes formicivorus

Mac Flat (NEW GROUP!)

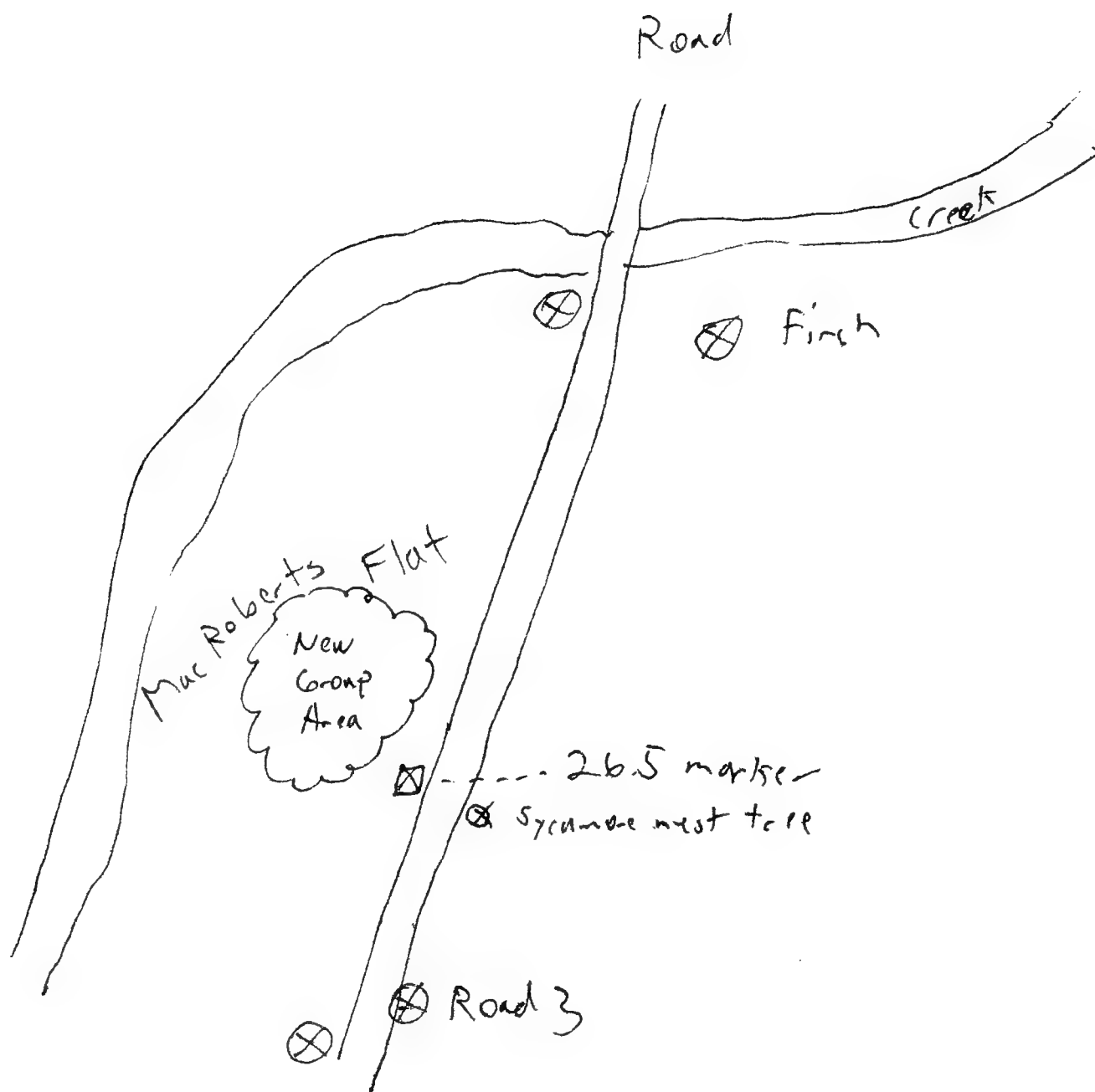
5 April Sometimes I really have to wonder if we've been asleep all winter. At 1100 I "discover" a new group that's been ^{under our very nose all winter.} _("Mac Roberts Flat") On the nice flat between Finch and Road 3, I flush 2 birds and find a lot of acorns stored in some of the dead sycamores (and a few in a spindly VO Rd 3 birds used to flycatch + sapsuck from).

11/19, up on PO Hill, I see a ♀ which I think is unbanded + probably belongs here. May take a blind to get a good watch in, however.

6 April Walk by at 1400, I ① Flush a bird from a dead or nearly dead sycamore right along the road (PO Hill side), where there is a new ~~hole~~ hole under construction? ② Get a look at a banded ♂, I read as M/Red (?). Will need to do better than this, however.

10 April Walking up here 0930, I see a banded ♂ M/LPink (?) plus 2 other birds (!): So at least 3 birds here. The ♂ could be ♂540 from Finch, but we'll have to see. 0945, watching from high up on PO Hill. 1040, Success, the two ♂♂ here appear to be ♂540 ^{DGm/LPink} M/LPink + ♂282 Tan-Red/Tan-Red of Finch! ♂282 is the real surprise, because he's a supposed breeder at Finch. And the ♀ is, not surprisingly, unbanded. No evidence of any mate guarding going on, so it may be some time yet before they breed.

2 May Strolling by 1500, I flush a bird out of the hole tree along the road, but nothing serious yet, I guess.



M. formicivorusMac Flat

18 May Mac Flat has nested! After flushing a bird out of a road-facing hole in the roadside sycamore (see map back of P. 1) I climb up, open the hole and find 4 eggs, ~ 6 days along. This would put hatching at ~ 24 May, banding ~ 14 June

14 June Banded 4 nestlings here, 1800; Juv 902-905. ~~Two~~ 902 + 903 seemed pretty healthy, Juv 904 was OK, * J905 was quite runty * underdeveloped. See cap recs.

29 June ** GROUP UPDATE **

① ♀NB, ♂282, ♂540 founded MacFlat (NEW GROUP) ~ 24 Dec 1982 ± 2 weeks (see Finch notes)

4 Aug Here in the late afternoon, I find a couple of birds sapsucking from a Live Oak overhanging the road. They prove to be ♂540 ^{Dbrn / L Pink} and a Juvenile, whose bands I read as ^{m / D Blue-white}. Unfortunately, it shouldn't be any of the MacFlat babies, unless I screwed up in banding J904 M / Red-white, screwed up recording it on the field list, screwed up reading the bands, or something.

Mac Flat ABANDONED fall 83

1983 R.L. Mumme

M. formicivorus

MacFlat NEST RECORD

May
18 April

1600, open hole in sycamore along road:

4 eggs, ~ 6 days incubated

14 June

Banded 4 nestlings: See notes & caprecs for
Juvs. 902 - 905

Melanerpes formicivorusRoad 317 Jan

**

GROUP UPDATE **

① ♂656 disappeared 9 Aug 1982 \pm 1 week

Last seen 30 July 1982; Missing 18 Aug.

② J793 disappeared 12 Sept 1982 \pm 3 weeks

Last seen 18 Aug, gone 5 Oct

5 March

Time for a watch here 0930 (Long overdue!)

Gray, misty morning. 1130, only ♂654 ^{CPH/M} seen, and that's it. Will have to try again later7 March

Later, watching 1000. 1200, looking bad. Only ♀265, ♂654, ♂792 seen, well & repeatedly. At one point I thought a second ♀ was here, but I didn't see any bands. Anyway, this watch doesn't bode well for ♂68. He may well be gone, and as yet unreplaced because of the presence of ♂654 and ♂792. However, at least one more watch will be needed to confirm ♂68's disappearance.

21 March

Trying again, 0905. 0925, ♂654 gives hot pursuit to a ? intruder. Could it have been a ♂? ♂68 does indeed appear to be gone. Will ♂654 mate with ♀265? 0935. Successful watch! ♀265, ♂654, ♀710, ♂792, ♀794 all seen very well. ♂68 is certainly gone, but 2 ♂ helpers (one 2yr old) may prevent immigration.

31 March

Taking another look here on a beautiful AM, 1100: 1120, Looks like status quo: ♀265, ♂654, ♀710, ♂792 all seen well. Obviously no ♂ replacement yet. Will Road 3 Nest this year.

Melanerpes formicivorusRoad 35 April

** GROUP UPDATE **

① ♂68 disappeared 3 Jan 1983 \pm 1 month19 April

Watching here 1220, for signs of nesting, mateguarding, immigrant ♂♂, etc. 1300, No sign of mateguarding. Saw ♀265 fly off once + ♂654 failed to follow, and ♂792 was seldom around. However, ♀265 spent several minutes excavating a hole on the right hand fork just above (~1 foot) the crotch. If they nest, I would guess that this would be the place. ♀265, ♂654, ♀794, ♂792 all seen well. Only ♀710 (seen intruding at Plaque a few weeks ago) missing.

4 May

Susan reported a lot of interest in the new hole. I climb up at 1715 and find the hole deep + good looking, but without eggs.

8 May

Checked the hole here 1845, and saw of a gun, 4 inbred eggs, meaning 5 May was first egg date. Susan reported no guarding of ♀265 by either of her extant sons, ♂654 or ♂~~654~~ 792.

10 May

Opened the hole, still 4 eggs, so clutch was complete as of 8 May.

Road 3 ABANDONED Fall 83

1983

R.L. Mummie

M. formicivorusRoad 3 NEST RECORD

- 4 May Peeped into new hole in sycamore, 1715: No eggs
- 8 May " " " " " " " " 1845: 4 eggs
- 10 May Opened deep hole, 1130: 4 eggs
- 18 May Bird looking out at 1200
- 22 May 1430 checked hole 2 Nestlings, 2 un-hatched eggs.
Nestlings ~ 4 days old, healthy, no evident in-breeding depression
- 11 June Banded 2 nestlings, neither particularly healthy,
J. 897 + 898. Rd 3 is out of acorns

Melanerpes formicivorusSchool Hill

30 April After Walter reports a ♂ looking out of a new hole just below the 82 nest hole, I come up here, open the hole, and find 5 eggs, ~ day 6 in incubation. Another fragile hole, like last year's so we would do well to open it as few times as possible.

5 June Bad snake experiment here, 1030. The snake got out of the collar and took refuge in the hole above the 82 nest hole. While trying to extract the snake, I prematurely fledged one of the nestlings, which flew weakly to the ground near the Poison Oak tree & disappeared. Great. I peeped into the nest & saw at least 1 nestling still inside.

29 June ** GROUP UPDATE **
① ♀753 + ♀755 Moved to Cho-go 20 April 1983 \pm 1 week
Last seen at SHill 6 April (Philip) nest found at Cho-go 9 May.

School Hill ABANDONED Fall 83

1983 R. L. Mumme

~~Atta~~ M. formicivorus

School Hill NEST RECORD

30 April Opened new lower hole in 82 nest tree (blue oak SW of enclosure), 1700: 5 eggs, ~ 6-8 days old

11 May Checked hole via peeper (hole too fragile to open regularly)
Looks like 3, (maybe 4) young ~ 5 days, plus one unhatched egg

27 May Banded 3 healthy nestlings, now Juvs. 872, 873, 874. See capture records.

1983 R.L. Mumme

Melanerpes formicivorus

School Hill West

17 Jan ** GROUP UPDATE **

① ♀531 disappeared 25 July 1982 ± 2 months
Last seen 17 May, gone by 6 Oct.

② ♀674, same dates, disappeared

③ J757, J759 NSAB, 28 May 1982

④ ♀♀ 874 + 875 (unbanded ♀♀) moved to
SHW 25 July 1982 ± 2 months. One ♀NB there
6 Oct, two on 3 Dec

24 March Watching from blind here, 1010: I flushed 3 birds
as I walked up, including at least 1 certain (and perhaps
2) ~~unbanded~~ unbanded ♀♀. 1110, By now I've seen
♂530 ^{BPnk-br/M}, and ^{Red/M} which I assume is
♀758, plus the same or another ♀NB.

2 May Walked up here 1330, found a ♂ looking out of
a new hole in the SHW west granary. He didn't flush,
and was down until I said "hello". Looks like a nest

3 May Opened the new hole here + found 3 nestlings,
~ 5 days old! SHW west started pretty early.
I should band here on 20 May.

20 May Banded 3 nestlings here

SHW Abandoned Fall 83

1983 R.L. Mammé

M. formicivorus

School Hill West NEST RECORD

3 May Opened up new hole in granary, 1300:

3 nestlings, ~ 5 days old.

~~14 May~~ ~~Abandoned hole~~

20 May 1430, Banded 3 fairly healthy nestlings,
Juvs. 860-862. See capture records

M. formicivorusARF, too7 June

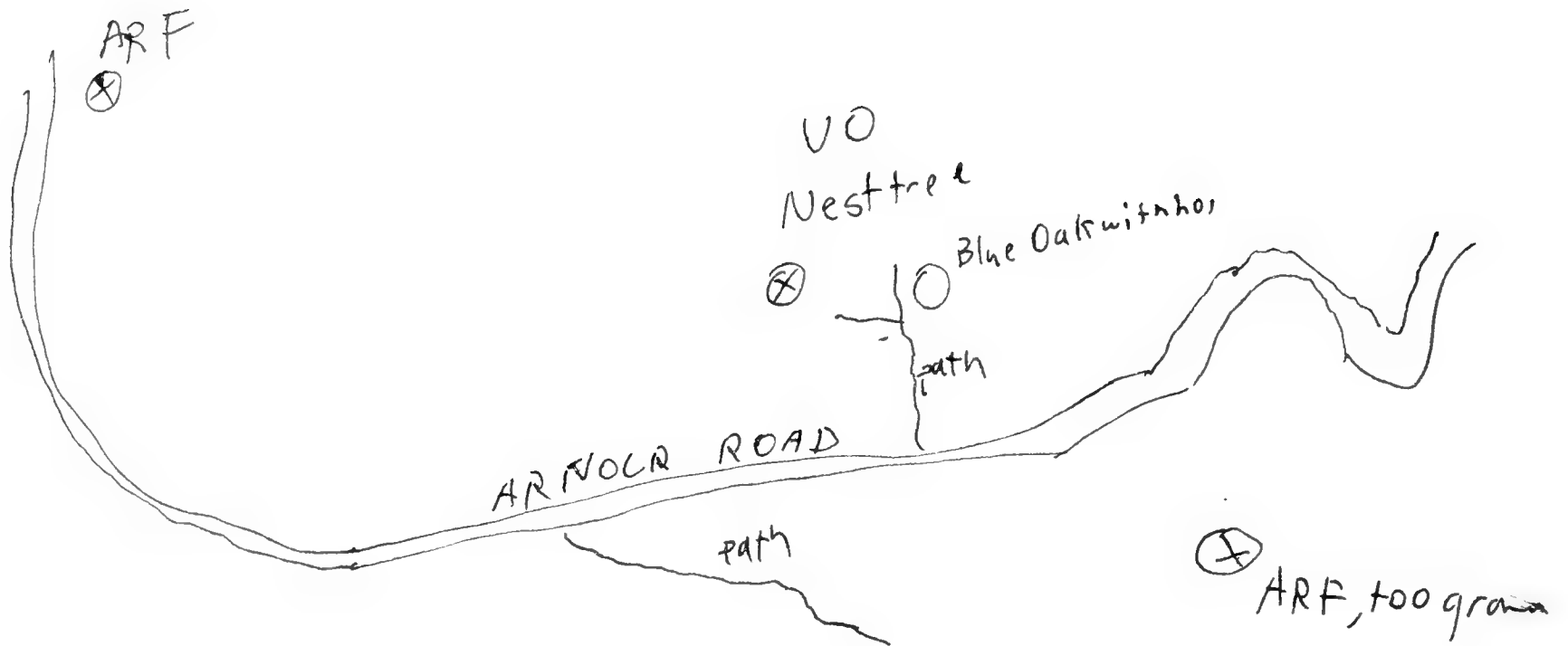
After a long struggle, I finally find the nest here (see map on back), in dead stub of a Valley Oak in the middle of the thicket between ARF & ARF too. Young are banding age, too, from what I could see peeping in. Also while watching the group here, it is apparent that it consists of a ♂ NB, a ♀ NB, and a 1st year (?) male M/L Green (?), which is possibly ♂ 800. A better look at him is needed, however.

29 June

** GROUP UPDATE **

- ① ♀ 642 disappeared 1 Dec 1982 \pm 5 months.
(Last seen 8 June 82, gone 7 June 1983)
- ② ♀ NB moved here (AU) 1 Dec 1982 \pm 5 months
(present at ARF, too 7 June 1983)
- ③ J 799 NSAB 820606

ARF, too ABANDONED Fall 83



~~1983~~ R.L. Mumme
1983

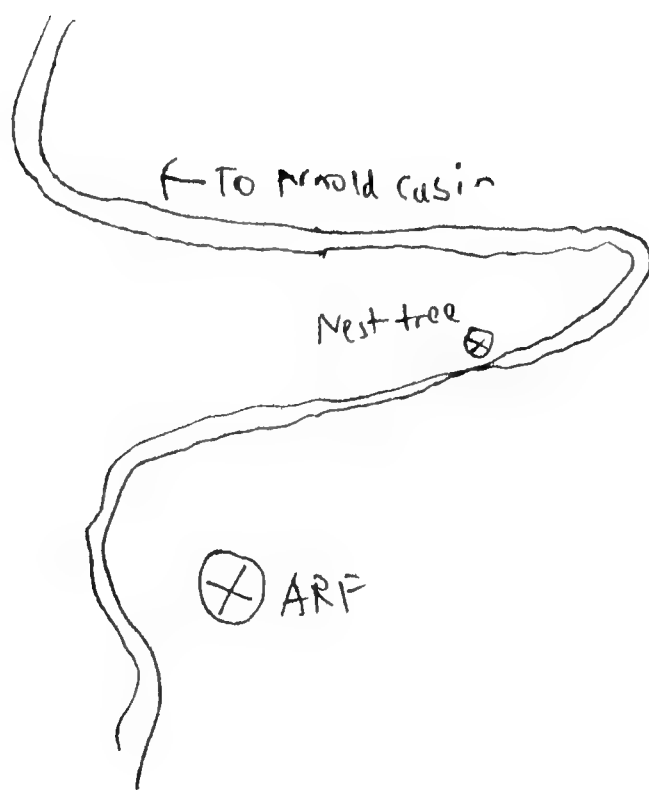
~~1983~~
1

Melanerpes formicivorus

ARF

- 7 May Through sheer luck, while walking ~~up~~ down from the Arnold, I happened to glance up at a Valley Oak along the road, 50 m down from the Big Bend, and saw a bird looking out of a nice new + easy (with rope ladder) hole. Seems like a sure nest.
- 16 May Walked by again, 1030 + 1400, still a bird looking out.
- 23 May Finally open up the hole here, finding 3 babies, ~ 8 days old (one nestling was quite a bit smaller than the others).
- 4 June Banded 3 nestlings here, now Juvs. 880-882. 882 was quite runtish.

ARF ABANDONED Fall 83



Melanerpes formicivorusBlack Oak17 Jan

** GROUP UPDATE **

① ♀320 disappeared 3 May 1982 \pm 2 weeks
 Last seen 18 April, missing in nestwatch 18 May
 certainly gone by 18 Aug

② J 740 NSAB 820526

③ J 828 disappeared 12 Sept 1982 \pm 1 month
 Last seen 18 Aug, gone 7 Oct

29 April

Walking by 1245, I flush a bird out of the "usual"
 nasty hole in the Valley Oak next to the granary.
 I guess they may have a nest

16 May

Philip reports considerable interest in the "Poison Oak" Hole
 (81 + 82 second nests), but no sign of ♀427, and only ♀741
 going into the hole. Very strange. Also, very quick visits by
 all birds, so I'm not sure if they have a nest (Philip
 saw no food in bills).

23 May

Big doings here: Watching from blind, 1400, I learn
 ① At least 2 new ♀♀ here: ♀680 ^{yellow} m / L Blue and
 ♀505 (!) ^{wht / L Pink} from A1! ♀505 is especially
 neat, because she is a widowed ♀ (from death of ♂100, see
 Susan's notes) and apparently decided to leave A1, presumably
 because all the ♂ helpers there have prevented replacement
 ♀505 is being tightly guarded by at least 3 ♂♂ (I think
 ♂102, ♂426, ♂691 (!)) and ♀680 appears to be being
 guarded by ♂321 (again, not positive). Both ♀♀, but
 ♀680 in particular, are checking out the PO Hole. ♂497
 also seems to be involved in guarding but I'm not
 sure how at the moment. Clearly, BO needs no work

M. formicivorusBlack Oak26 May

Watching, 0610: Velly interesting. 3 AI ♀♀ are here: ♀505, ♀680, and ♀568 ^{wht-mauve / M} ^{mauve-white / wht-mauve}, who ^(eyelid always closed) seems to have a problem in her right eye. Only passing interest in the nest hole today, lots of open wing wakas, etc, so it looks like awhile before nesting. The 3 new ♀♀, plus ♂426, ♂102, ♂321, ♂497, ♂691, were hang-out primarily in the 2^o area, near the nest hole. Hangout west of the main granary were the "helpers": ♂689, ♀713, ♀741, ♂742, ♂744, + ♀829 (only ♂743 is missing)

The 1^o granary area itself appears to be a buffer zone, with both groups of birds making occasional forays there. 0815, I hear lots of noise up by AI. PS in progress perhaps?

4 June

Very quiet, 1300. Thought I flushed a bird from the vicinity of the Poiso-Oak hole, but I wasn't sure.

8 June

Philip checks the PO hole, 0900: 5 eggs via peeper (bottom now unreachable).

29 June** GROUP UPDATE **

① ♀427 disappeared / March ± 2 months

Last seen ~~on~~ 14 Dec 1982, certainly gone by 16 May 83.

② ♀505 + ♀680 Moved to BO from AI 25 April

± 2 weeks, First evidence of these ♀♀ at BO 16-23

May 1983. Last seen at ~~B~~ Arnold 1 by Susan on 6 April.

Missing at AI on 7 May.

♂743 disappeared, too

Black Oak apparently abandoned Fall 83

1983 R.L. Mumme

M. formicivorus

Black Oak NEST RECORD

8 June Philip peeps in poison oak hole, 0900: 5 eggs

16 June Opened hole, 0915:

3 nestlings ~ 5 days old, plus 1 un-hatched
runt egg and one un-hatched normal egg with full
term embryo.

6 July Banded 3 healthy nestlings, now Juvs. 929-931

Melanerpes formicivorusSobo17 Jan

** GROUP UPDATE **

① ♀640 disappeared ~ 25 Aug ± 3 months 1982
 Last seen at nest 18 May, gone by 11 Dec

② Juv. 737 + 738 NSAB 26 May 1982

4 March

Watching here from blind, 0935. Sobo is still doing pretty well, acorn wise 1110, Finally, after a struggle, I get a full census: ♂639 Yellow/DBlue, ♀658 M/LBlue-Black, ♀659 ^{white} M/RIK-on ♂736 DBlue-wht (N)/Red, and ♀739 ^{white} LBlue-Yellow. Even though I'm using the blind that's been sitting here since Dec, the birds seemed pretty upset with my presence. 1115, out of the blue it starts to rain very hard. 1130, end watch. Starting to look like the breeding ♀ is not going to be replaced, which will give us another case of "Finch Syndrome"

23 May

Walked up + said hello to the granary holes. No response

4 June

Nobody in the granary holes, 1300

M. formicivorusArnold I

- 25 March 1300, ♀568 mauve-wht/wht-mauve and ♀680 ^{Yellow/LBlue} M/LBlue seen sapsucking from a Valley Oak along the fence line, 30 m S of the Keep Out Gate.
- 7 May Susan reports ♂100 absent once again, + no sign of a nest.
- 16 May Nobody in any holes here, 1230.
- 23 May " " " " " "
- 26 May Hmm, a lot noisier here, 3 days later. After watching at Black Oak (see RO notes), I suspiciously walk up here at 0900 + find a Power struggle in progress. Basically, this is the story:
- ① With ♀505, ♀680, + maybe ♀568 at Black Oak, ♀761 was the only remaining ♀ at A1, and she was fighting off (or trying to) ~ 5 ♀NB that were hanging around. All appeared to be operating singly, with no cooperative groups as far as I could tell. The only banded ♀ intruder I saw was ♀816 ^{M/LGrn-LBlue} White/DBlue-LGrn of Finch(!). At least one ♂NB was around, too.
- ② All the A1 ♂♂ were around: ♂679, ♂762, ♂826, ♂827: But all were peripheral to the main event, and didn't seem that involved. But more important the long lost ♂100 ^{Yellow-DGrn} Yell-DGrn/Yel-DGrn (lost a band on right leg) is still here! This leads to the question of (a) was he around all winter (probably), and (b) why did ♀505 go to BO in the first place? Of note, A1 is dead out of acorns, while BO still has plenty. I suppose that this could have precipitated

M. formicivorusArnold 1

(26 May) ♀505's departure, to "greener pastures".

③ After going elsewhere 1000-1100, I return at 1100 + find ♀568 has returned (at least temporarily) to A1. She and ♀761 appeared to be restoring order, had routed the intruders to the periphery, and were talking with the ♂♂ freely. The ♂♂, not surprisingly, seemed to take no part in helping the ♀♀. It will be interesting to see what happens here.

4 June 1130, I walk by + find the place completely quiet. Obviously, this has been resolved. We will have to watch here soon to find out for sure.

20 June Watching here, 1615: Slow, but I do see ♀568 ^{wht-mauve/m} ^{m-w/w-m} for sure (both eyes appear healthy again) so she did not move to Black Oak. ♂762 ^{yel-DBlue/or}
Also.

23 Aug Interesting watch here, ~~08~~ 0745-0930: Only three birds seen, but one is ♀505 ^{wh/LPink} ^{wh/LPink}, who has indeed come back to A1. ♀568 and ♂679 also seen well. The 3 birds were busy harvesting + eating some ♀. drysolepis acorns from above the A1 granary, one of very few trees that seems to have any acorns at all. Lots of Scrub Jays around, too.

1983 R.L. Mumme

M. formicivorus

Keep Out

25 March

1245-1345, I dig up a full census here.
♀567 ^{Red/Red} m/Red, ♂706 ^{Red/} m/, and ♂705 ^{m/Red-white}.
Still a few acorns here, but not many. ♀567 seen

16 May

Sapsucking from a Valley Oak SW of the granary
Still acorns + some birds hanging around here. Found a
nice potential nest hole that looked fairly new up toward
(VO) Lambert, plus one in the wretched stub where Al nested
last year. Both are a bit far removed from KO proper,
but worth keeping an eye on

23 May

Yes Keep Out has a nest! In the hole in the VO
up toward Lambert, I twice flushed an adult and
twice heard the sounds of very young nestlings (< 5
days, for sure). The tree is climbable, but I was
almost up to the nest when I discovered that the nest
limb was a bit dead and a bit hollow. It will be safer
to try it later with the rope ladder.

4 June

1130, I find KO is out of usable acorns, and I'm
wondering if the nest may have failed during the
miserable weather of the last few days.

1200, Nope, while watching Lambert I hear a bird
waka + baby noises from the KO nest hole.

Wrong, wrong, wrong! This is Lambert's nest!
See ~~Al's~~ Lambert notes. Does Keep Out have a nest?
If so, where is it?

12 June

Walter finds the nest here, in the ~~po~~ partially burned
Live Oak near the granary. Up there with Philip's shot ladder,
we had very old (~30 days) 3 nestlings, Juvs. 899-901

M. formicivorusKeep Out

(12 June) See caprecs for details. The young were so old, one (J899) belted as I ~~was~~ opened the hole (fortunately retrieved by Philip), and J900 flew (fairly strongly) to a neighboring Valley Oak as I was putting the birds back in the hole. 899 + 901 stayed put, as far as I could tell. I trust J900 will be OK.

24 June Juvs 899-901, ♀567, ♂705 all seen well.

9 Oct Keep Out appears abandoned, no doubt a result of the Acorn Crash of 83. No birds, no stored acorns.

Not so: KO not abandoned

Melanerpes formicivorusLambert17 Jan

** GROUP UPDATE **

① ♂545 disappeared. 18 Aug 1982 ± 2 monthsLast seen 27 July June, missing 26 July (poor-watch)
certainly gone by 8 Oct.② ♀720 disappeared ~ 8 July 1982 ± 2 months

③ ♀862 (unbanded) " " " " " " "

Both last seen on 4 May, missing in poor watches
on 26 July + 27 June, Certainly gone by 9 Sept ambush25 MarchFirst watch here since Dec, 1030: By 1130, Nobody
has appeared in the granary yet, but I pick up a bunch
of birds sapsucking from a spindly Valley Oak SW of
the granary. ♂546 L^{Grn}/D^{Blk}, ♂624 L^{Blue-Red}/L^{Blue-Red},
♀775 D^{Pnk}/yellow, and ♂777 Blk/wht-L^{Grn} all seen
sapsucking. ~~Only~~ Only ♀720 not confirmed, but she
may have been around.7 May

Nobody in any holes here, 1400

16 May

" " " " " 1230

23 MayAgain found nobody in any hole, 1300. I also watched here
a bit seeing only ♀775 D^{Pnk}/yellow and ♂777 Blk/wht
-L^{Grn}, although I flushed two other birds. However, this
leads me to suspect that maybe ♀720 is gone, and Lambert
is suffering from Finch syndrome. Another watch or two
would be good, here.4 Junewell, I'm wrong. Mark watched a bit at the "Keep Out"
nest, and saw 1 feeding visit by ♀ Red-yellow/Red, which
just has to be ♀720. So Lambert has nested.8 June

Banded 3 Lambert nestlings, Underweight Juvs. 894-896

M. formicivorusLambert9 Oct

Watching here, 0905: 1030. Nothing, no birds, and no acorns stored. Lambert seems to have been abandoned as a result of the crash.

6 Dec

Watching here 1110, after Susan and I have placed ~1500 acorns in the Granary. All but ~50 were put into the fallen "main" granary. About 50 were put into the "south" feceline Valley Oak (82 nest tree) ~ ~~1100~~ 1100 of the acorns were collected by Susan from Chews Ridge (mostly small Valley Oak, Live Oak, + a few Black Oak + Golden Oak). About 400 were some dry, hard acorns I collected (^{all} ~~mostly~~ Valley Oak + Live oak, about 50-50) in 1982 and had been dried, then sitting in a bag in my office.

1210. No action here yet. Lots of Scrub Jays flying around (many carrying acorns) but none yet have visited the granary.

1983 R.L. Mummie

M. formicivorus

Fanny Arnold

25 March

Watching here 1130 - 1245. Decent watch, I see ♂835 ^{M / or-wht} ♀834 ^{wht-Blk / M} Red / , ♀NB, and ♂797 ^{white / DBlue - Red.} No real evidence

that ♀796 is here, but she might well still be here. FA appears to be OUT of acorns!

16 May

No acorns, no birds, and nobody in any holes, 1200

23 May

" " " " " " " " 1400

~~24 May~~

Just as I was about to give up on this group, I see ♀834 Red / Blk-white in the granary. Still no evidence of a nest, though.

4 June

No birds, nobody in any holes, 1200.

16 June

watching, 0630: 0900: Good watch. ♂835, ♀834, ♀NB, ♀796 all seen well & repeatedly, after sapsucking from a blue oak on the E side of the ravine. Only ♂797 was missing, and he may be gone. Also, a ♂NB was here for a while, acting like he may be part of the group. Further watching would be useful. The main point is that FA appears to have no nest: No interest in holes or food-carrying seen.

9 Oct

FA seems abandoned: No acorns, no birds seen by Sandy (see her notes).

Not so FA not abandoned

1983 R. L. Mumme

1

Melanerpes formicivorus

Upper Arnold 2

17 Jan

** GROUP UPDATE **

① J781 disappeared 2 Sept 1982 \pm 2 months

Last seen 27 June, Gone by 7 Dec

7 May

Nobody in any holes here, 1330

16 May

Success! 1130 I flush a bird out of the 82 nest hole (upper hole in the Blue Oak) and find 4 very fresh eggs, ~ day 1 (I'm not at all sure that the clutch is complete). I should check this hole again soon to confirm final ~~the~~ clutch size.

23 May

Didn't flush anybody out of the hole when I walked past at 1430.

4 June

Baby noises from nest, 1200

20 June

Banded 3 nestlings here, with one dead nestling. See nest + capture records.

1983 R.C. Mumme

M. formicivorus

Upper Arnold 2 NEST RECORD

16 May Reopened upper Blue Oak Hole (1982 nest hole), 1130:

4 eggs, quite fresh, ~ day 1.

4 June
~~28 June~~

Baby noises + a brooding adult at 1200.

20 June

1645, Banded 3 nestlings (~24 days old), now Juv.

914-916: One dead 20-day old was also in the nest,
meaning all 4 eggs hatched.

Melanerpes formicivorusLower Arnold 217 Jan

* * GROUP UPDATE * *

① J784 disappeared ~ Oct 5 1982 ± 2 monthsLast seen 26 July, gone by 11 Dec29 AprilFlushed two birds out of the back hole at 1300,
but peeping in I found no eggs.7 MayFlushed a bird from the back hole, found 3 eggs about
6 days along. Nest record has details.16 MayChecked the hole "by hand over the hole". Heard at
least two, maybe three young nestlings.4 June

Banded 3 nestlings, quite old (probably hatched ~10 May)

1983

R.C. Mumme

M. formicivorus

Lower Arnold 2 Nest Record

7 May

After flushing bird from back hole, 1315, checked hole.
3 eggs, ~ day 6.

23 May

"Baby noisies" from hole, 1430.

4 June

Banded 3 old (28 days) healthy nestlings,
877 - 879. See cap recs.

Melanerpes formicivorusBianca17 Jan

** GROUP UPDATE **

① ♀871 (♀NB) died of unnatural cause 4 Oct 1982

② Juvs. 764, 765, 766 NSAB 29 May 1982

③ J, 763 disappeared 23 July 1982 \pm 2 weeks

Last seen 27 June, gone by 18 Aug

4 March

Watching here 1230, after Walter reported the collapse of the main Black Oak granary tree. However, I still can find ~100 acorns stored in a dead limb of a Valley Oak 40 m down the ridge, near the very tall, spindly Valley Oak. 1305, success. A ♀NB and a ♂NB definitely still here. First picked them up on the border of the woods between Bianca + Black Oak. Saw the ♂NB fly to the knoll VO, then the ♀ fly to the granary very purposefully to chase a Plain Titmouse. She was joined there by the ♂NB.

16 May

Nobody in any holes, though birds + acorns appear to be present

23 May

Nobody in any holes 1430

4 June

Nobody in any holes

24 June

Watching 0740. 0900 OK. One ♂ + one ♀, both fairly surely (but not positively) unbanded. No sign of a nest, though I did see the ♂ holding an entire acorn for a few moments. I guess they still have a few acorns left.

9 Oct

1045, karrits + a good number of stored acorns (Golden Oak + Black Oak) indicate that Bianca is occupied.

M. formicivorusPoison Oak Hill

21 May 1600, I finally get up here in the annual search for nests, and I do very well indeed. As I walk up into PO #1, I flush a bird from the vicinity of last year's nest, ~~and~~ climb up, and find 4 healthy 12-day olds in the 1982 nest hole.

Continuing on to PO #2, I see nobody looking out of the 82 hole, but on a hunch I climb up and find 3 good looking 16-day olds, plus one unhatched egg. I should come up again to band both groups in about 5 days.

From PO #2 I headed down the Ridge toward Road 3, and found PO #4 ^(Fire Ridge) in an apparent state of abandonment. No acorns, ~~no~~ no sign that any acorns had been present for some time. Yet, I heard birds there from PO #2, and further down the ridge, near the old site of PO #3, I saw 3 birds, but no sign of a granary or nest.

25 May Banded 4 nestlings at PO Hill #1 (Juv. 865-868) and 3 at PO Hill #2 (869-871). See capture records.

Melanerpes formicivorusArtificial GranariesHastings19 Dec 1982

BROWN -- 1030, No birds around here, and nearly all the acorns are gone. Only ~5 left in the bottom of one of the blocks.

WOOLFENDEN -- 1100, No birds, but still plenty of acorns, though a ~~few~~ few have been eaten with the shell left in the storage holes.

HORSETAIL -- Joanne has reported birds hanging out here the last few days, but I find nobody here at 1130.

No new acorns in "old" horsetail, but the ones in "new" horsetail look untouched.

5 Jan 83

Walked by refute 1, 1030: No activity, and it looks like all the acorns are gone.

R.L. Mumme

1984

Hastings Reservation

Melanerpes formicivorous

Acorn WoodpeckerACORN ADDITION EXPERIMENTS

24 March Added 100 acorns, placed in chunks of styrafoam granaries, to the following territories. Acorns were Quercus chrysolepsis

- ① Road 3 -- in sycamore: Birds already reoccupied
- ② Finch -- in sycamore:
- ③ Gate -- in sycamore
- ④ Westgate -- in sycamore
- ⑤ 1800 -- in Valley Oak main granary
- ⑥ 1500 -- " " " " "
- ⑦ School Hill -- " " " " " ; Reoccupied

25 March Added styrafoam + ¹⁰⁰ acorns to 5 more groups.

- ⑧ Blom one -- Valley Oak Main Granary
- ⑨ Blom 3 -- In Blue Oak 82-83 nest tree
- ⑩ Dark Hollow -- In 82 nest tree
(perhaps birds already here)
- ⑪ Hay Blom -- attached to utility pole adjacent to granary
- ⑫ Low Hay -- In VO main granary

14 April Added Styrafoam + 100 acorns to

- ⑬ Plaque (utility pole)
- ⑭ Corral Viejo Grande -- Valley Oak Main Granary

Added 100 acorns to the styrafoam already installed at

⑬ Road 3, Low Hay, + Dark Hollow; gave Blom 3 + Finch 10 acorns, just to keep them interested

22 April Added 50 Acorns to Low Hay Plaque Road 3 CU Grande Dark Hollow. Low Hay, CU Grande, Road 3 totally out of the 100 given to them last week. 30 remained at Plaque and 28 at Dark Hollow.

Acorn Woodpecker

Acorn Addition exp (cont)

- 27 April Added 50 acorns to all 5 groups (Plaque, Low Hay, Road 3, CV Grade, Dark Hollow). All had exhausted their 50 given on 22 April, except Dark Hollow, which had 3 acorns remaining.
- 29 April Gave 50 acorns to 1800 + Blom 1, hoping to add them to the experimental groups. Acorns remaining 5800.
- 2 May Added 50 acorns to 7 groups: (Plaque, Low Hay, 1800, Blom 1, Dark Hollow, CV Grade, Road 3). Acorns remaining 5450.
- 5 May Added 50 acorns to all 7 groups. All exhausted 5100.
- 8 May Philip adds 50 acorns to all 7 groups.
~~###~~ 4750
- 11 May 75 acorns to all groups
- 14 ~~15~~ May 75 acorns to all groups 3600
- 17⁻¹⁸ May 75 acorns to all groups
- 21 May 75 acorns to all groups
- 25 May 75 acorns to all group
- 30 May 75 acorns to all groups
- 5 Jun 50 acorns to all 7 groups
- 13 June 75 acorns to all 7 groups

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Acorn Woodpecker

Chongo

9 March

** GROUP UPDATE **

♂ NB (1849), ♀ 753, ♀ 755 abandon Chongo summer-fall of 1983. Nest failed by 1 June 1983. Denise heard (did not see) birds here 30 June 1983. Clearly gone by 16 Oct (Sandy). Say Chongo abandoned 1 Sept 1983 ± 6 weeks.

Acorn Woodpecker

Buckeye9 March ** Group Update **① ♀666 disappeared 5 July 1983 \pm 1 monthLast seen by Denise 2 June missing 7 Aug② ♀664 disappeared 10 Sept 1983 \pm 1 monthLast seen 7 Aug, gone by 13 Oct③ ♂663 disappeared 20 June \pm 6 weeksLast seen by Susan 5 May, gone by 7 Aug④ ♀NB(1876) disappeared 2 Dec 1983 \pm 6 weeksLast seen by Sandy 19 Oct, gone by 16 Jan13 June** GROUP UPDATE **① ♀NB(1890) Moves to Buckeye ~18 March ¹⁹⁸⁴ 1983 \pm 2 weeksFirst seen by Denise 6 April, not present on 4 Mar

1984 R.L. Mumme

Melanerpes formicivorus

Plaque

3 March 1200, A second bird has briefly joined the lonely ♂521. After hearing wakas, Beth and I find ♂521 plus a ♀ whose bands I read as ^{LB}Blue/or-white or-wht/M, which is not easy to reconcile with anybody. Most likely candidate may be 752 ^{LB}Blue/LBcrn-LBBlue LBcrn-LBBlue/M of PO Hill #2, banded as nestling in '82 and not followed since. Anyway, ♂521 chased this bird around about 1hr, but chasing was not particularly enthusiastic, only intermittent. Finally, the mystery ♀ flew off toward SHill + PO Hill ~ 1315. By 1435, still very quiet, no action.

4 March So far today, ⁽¹⁴⁰⁰⁾ I've heard very little activity here, and no evidence of a second bird.

9 March ~~1600~~ 1600-1730, after a tough struggle I manage to (almost) confirm that there is a new ♀ here, and it is (almost certainly) ♀752 ^{LB}Blue/LBcrn-LBBlue LBcrn-LBBlue/M, banded as a 1982 nestling at PO Hill #2. Still would like a few more + better looks, because the LB on the split bands is exceedingly pale. Anyway, she and ♂521 seemed very cozy today: No sign of aggression between the two, and several times they were perched close together. Only a few wakas, however.

**** GROUP UPDATE**

- ① ♀494 disappeared 28 June 1983 ± 1 week Present 17 June missing 8 July
- ② ♀496 disappeared 30 Dec 1983 ± 2 weeks
Present 14 Dec, gone 15 Jan, following aggression
- ③ ♂660 returned to Plaque 1 Sept 1983 ± 1 month

Acorn Woodpecker

Plaque

(9 March) ** GROUP UPDATE ** (continued)

♂660 first seen back at Plaque 20 July, but absent 21-22 July, Present 5 October.

④ ♂721, ♂723, ♂660 disappeared 30 Dec 1983 ± 2 weeks.
Last seen 30 Nov (but at least two were around 14 Dec, all gone 15 Jan).

⑤ ♀752 moved to Plaque 6 March 1984 ± 2 days.
First seen 3 March, well established 6 March + 9 March.

7 April Watched here yesterday, saw ♂521 + ♀752. Today (1345) I hear a lot of wakas + find ♂521, ♀752, and ♂723 ^{M/Dgreen} Dbr-BPnk(w)/LPi-k. A bit of aggression from ♂521 (saw 521 peck 723 once) but it looks like he will be accepted. ♀752 seems happy to see 723. Don't know if ♂721 (who was with ♂723 2 weeks ago at Low Hay) will return, too.

13 April Yes, 1130 I walk outside the lab + find ♂721 ^{M/LGrn-yellow} Yellow/Lbr-yellow, along with ♀752 and ♂521. Did not see ♂723, however.

19 April After adding Styrofoam + 100 Acorns on 14 April, I find 60 acorns remaining in the styrofoam at 1200.

20-21 April Granary watches here reveals ① ♂660 is back (seen 20 April, but absent on 21 April. He seemed very displeased with ♀752 for some unknown reason. ② 21 April, ♂721 chasing ♀752 around, denying her easy access to the granary. Hard to see why ♂♂660 + 721 should be so displeased.

Acorn Woodpecker

Plaque

27 April Turmoil at Plaque, 0830. ♂521 ♂721 ♂723, and even ♂660 (who was looking solid at Pipeline a few days ago) here, but no immediate sign of ♀752. Also here are at least 2 ♀NVB, being chased around by the ♂♂. Has the aggression against ♀752 finally forced her away? As of 24 + 25 April, my casual glances indicated a lot of chasing still going on.

1200, Pretty quiet now. All 4 ♂♂ seen again.

4 May Plaque continues to have its problems, 0800, an unbanded ♀ here, being chased around most vigorously by ♂521, also a bit by ♀752.

23 May Finally settled here. 0700. 0830, I find ♂521, ♀752, ♂721 ♂723. ♂660 was here yesterday, but not this morning. No chasing of ♀752, so it looks much better for her. Also, Plaque is excavating a new nest hole in a dead stub of one of the "ferretine" Valley Oaks along the water-tail hill ravine. I climbed up & found no eggs, and the hole still has a ways to go. It also looks like ♂521, plus perhaps ♂721, is guarding ♀752. Will have to keep tabs here.

24-25 May Definitely not settled! A minor power struggle in progress here all afternoon. ♂660 (at Warp 5 in the morning) ♂521, ♂721, ♂723, all here but no sign of ♀752. ♀578 of Road 1 and at least 1 ♀NVB here, garricking and being chased by the ♂♂. However, by 0900 on 25 May, ♀752 is back, looking cozy with ♂521, ♂721, ♂723 (♂660 presumably back at Warp 5). Huh!

Acorn Woodpecker

Plaque6 June

Every morning for the last week there have been intruders hanging around Plaque. ~~Many~~

One that has been around the cabin utility pole is ♀847 Red-Blk/white-Red, the '83 ♀ from Blon 2. She's been garricking & walking on the periphery.

8 June

1200 a minor AS here, complete with

♂785 + ♀787 from 1800. ♀787 seems friendly with ♂521, ♂660, ♂721, ♂723, but not ♀785. Didn't see ♀752. More later.

12 June

Watching here 0900-1030, this is the story.

① ♀785 + ♀787 from 1800 seem to be the main ♀♀ here, although at least 1 (maybe 2) ♀NB are around, too. Also seen was ♀847 of Blon 2. Plus a ♀ whose bands I read as pinkym. It's possible that that ♀ is ♀752, but a better look is needed. A lot of chasing & garricking during the watch. ♂521, ♂721, ♂723 all here, but no ♂660 this morning. He, perhaps, is out there at Warp 5. He seems to be at Warp 5 in the mornings, Plaque in the afternoon.

1600, Things much calmer here

13 June

** GROUP UPDATE

① ♂723 returns to Plaque 7 April 1984

At Low Hay 23 March, first seen at Plaque 7 April

② ♂721 returns to Plaque 13 April 1984 (first seen that date)

③ ♂660 returns to Plaque 20 April 1984

Though shuttling between Plaque & Pipeline-Warp 5 May-June.

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 Acorn Woodpecker
 Plaque
 1984 R.C. Mumme

Acorn Woodpecker

Plaque

(25 June) Watched here, 1400. I find ♂521, ♂721, ♂723, plus (shit!) a ♀NB! Banner! No sign of ♀752. These 4 birds seemed quite happy together, with no obvious signs of aggression.

22 July During the last week, still a lot of noise (wakas, some garricks, & drums) at Plaque. Watching at 1030, I find a ♀NB again, ~~plus~~ Plus ♂521 and ♂721. 1120, I see ♂723, too. Looks like a stable group of four ~~all~~ birds.

Acorn Woodpecker

Y

9 March

The Y granary, which halfway fell in a March 83 storm, is now leaning precariously, and will probably not last long.

** GROUP UPDATE **

① ♂669, ♀675 abandoned Y ^{August} 15 ~~May~~ 1983 ± 1 month

Last seen there by Denise 18 July. No evidence of any birds here 13 Sept and 6 Oct.

4 April

Bill + Walter reports birds hanging around the aviary, Y, pines, etc. One of the aviary birds, Walter looked at was ♂669 ^{Or-D Blue/White}. I walk by at 1545, see no action.

12 April

1230 who should be sitting in the Lower Barn locusts than ♂754, the 1982 SHill nestling that hung out at Y a good part of last summer. ^{Wm-Dm/M} See well Lm/Wm-Dm. Check Denise's notes. I think she has seen this guy recently.

Down toward the pump are a ♀NB and another ♂ (I suspect SHill). Yes! It is ♀NB x ♂669, who then exchange wakas with ♂754. Neat

30 May

Y produces a nest, see nest record

13 June

② ** GROUP UPDATE **

① ♂669, ~~♀675~~ ♂754, ♀675 found Y 16 April 1984.

② ♂669 back at SHill 5 April, All 3 present at Y on 16 April)

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Acorn Woodpecker

Y Nest Record

30 May Opened new, high hole in the sycamore just below the
Y: 3 eggs fresh. (Clutch may not be complete)

① 18.8×15.4 (runt)

② 25.7×20.0

③ 25.6×20.4

6 June Opened hole, 4 eggs

④ 26.0×21.0

Should hatch ~ 11 June

should band ~ 3 July

16 June Checked nest 1100: Only 1 nestling, no sign
of unhatched eggs

28 June Checked nest, Cold & Empty: Failed

Acorn Woodpecker15009 March GROUP UPDATE **

① 1500 (σ^297 , σ^622 , $\text{f}601$, ~~$\text{f}675$~~ , $\text{f}818$) abandoned
15 Aug 1983 \pm 1 month. All ~~5~~ birds last seen 17 July
 no evidence of birds here at all during, 13 Sept
 acorn survey, or on 6 Oct

4 April See Philip's notes for the series of interesting events
 that have transpired since the acorn addition.
 Here at 1630 are a $\text{f}NB$, plus σ^770 + σ^771 . According
 to Philip, the artificial granary is about out of acorns
 but I saw the $\text{f}NB$ carrying an acorn bit to the 1st granary
 from the 2nd granary. I also could see at least 1 bird
 on 5 Hill as I was watching. The 3 birds here.

11 April Interesting watch here 1015-1045. σ^770 , σ^771 , $\text{f}NB$
 all here, but only σ^770 + $\text{f}NB$ were together. These
 two were always in the granary together, talking together, etc.
 The only time I saw σ^771 , he was in the "treehouse"
 area SW of the granary. He karrited a few times +
wakad to himself, but that was about it.

1145, σ^771 flew over here to granary. See 1800
 notes

26 April Ah, yes! 1030, I find two old friends in residence:
 σ^297 + $\text{f}601$ both seen very well. See Philip's notes
 for 23 April. He ^{maybe} saw σ^622 on that date, but
 no evidence of a third bird today. See 1800 notes
 for this date, too.

29 April 1000-1100, Looking here I once again find only σ^297 +
 $\text{f}601$. No evidence of σ^622 .

Acorn Woodpecker

150013 June

** GROUP UPDATE **

① ♂770, ♂771, ♀NB(1891) 28 March 1984

All 3 first seen at 1500 that date. ♂♂770 + 771 also tried to control 1800

② ♂770, ♂771 moved to 1800 23 April 1984

③ ♀1891 disappeared 23 April 1984

④ ♂297, ♀601 returned to 1500 23 April 1984

14 June

Very interesting developments here: walking by at 1000, I see 3 birds here: They prove to be ♂297, ♀601, and ♀682⁵ ^{LB}Blue-Red/M ^{LB}Blue-Red/LBBlue, ♀601's sister from Gate, who has been seen hanging out at Warp 5! A very nice case of sisters moving independently, several years apart: ♀601 in August 81 (then May 82), and ♀682⁵ in June 84! Good stuff. All 3 birds look very comfortable together, flycatching from same tree, etc.

Acorn Woodpecker

18009 March~~1800~~

** GROUP UPDATE **

① ♀785, ♀786, ♀787 left group 10 June 1983 \pm 2 weeks
 Last seen around 1800 off + on during May, clearly
 gone by late June. ♀787 seen intruding at Plaque 27 Aug

② 1800 (♀193, ♂770, ♂771, ♂774, ♀917, ♀918)

abandoned 17 Aug 1983 \pm 1 month Last seen

(all 6 birds) on 21 July. No birds present here on

13 ~~Aug~~ Sept and 6 Oct

③ ♀919, NSAB 21 June 1983.

5 April

Things are very confusing here. Yesterday (4 April) PM
 I found ♀650 (regularly), ♀648 (frequently) and 2
 rather dark-eyed ♂♂, neither of which I could
 get the bands of. Today, I find the same two ♀♀,
 and still have no luck seeing the bands of the two ♂♂.
 I'm getting the impression, however, that ♂♂770 + 771
 are continuing to shuttle back + forth between 1500 + 1800.
 When I started at 1000, the ♀NB at 1500 was garrickling
 + waking to herself almost constantly. ~~Also~~ During this
 time, I could see 2 ♂♂ + 2 ♀♀ together in NE 1800.
 At 1045, the commotion from 1500 seemed to stop
 and no ♂♂ seem to be around. Only 1 acorn left in the
 artificial granary. 1140, confirm ♂771 here with
 ♀648

11 April

1100, ♀648 + ♂771 together here for a long time, then
 ♂771 flew back to 1500 (where he was absent earlier) I
 suspect (see 1500 notes) that ♂771 will eventually move here.
 NO evidence of ♀650. Saw ♀648 eat an acorn bit, so some
 still around.

Acorn Woodpecker

1800

26 April Watching here, 1115 - 1200, I find ♂771 (evicted from 1500 by ♂297 + ♀601) but no ♀NB; instead, ♀648 is indeed here, and also no evidence today of ♂770 (though Philip saw him ~~Monday~~ on 23 April).

29 April Arg! 1100, I find a ♀NB here, waking to herself, with no evidence of other birds around. At 1500, I return and give 1800 50 acorns, hoping to regain some permanence by some residents.

24 May Short watch here 0810 - 0830, with great results.
 ♀193 ^{DBLue-LPink/DBLue} DPnk/M is back! One of the old ones, ^{m/DBLue} and a workhorse ♀ at that. Also seen were ♀785 ^{DBLue-yellow} and ♀787 ^{Red-yellow/M} and ♂770 ^{DBLue/LPink-DBLue}
 ♂771 ^{Green-Black/M}, and ♂774 ^{Yellow/Black-DBLue}.

Just about a full contingent. It will be interesting to see if they nest, and if all the ♀♀ lay.

13 June 1800 does produce a nest (5 eggs): See nest record, Philip's incubation watches. But only ♀193 laid. Shortly after laying, ♀785 + ♀787 turn up at a power struggle at Plaque.

** GROUP UPDATE

① ♂770, ♂771 found 1800 23 April 1984 (see 1500 notes)

② ♀193, ♀785, ♀787, ♂774 return to 1800 10 May 1984

Before ♀193's return, ♀648, ♀650, and a ♀NB were hanging out at 1800 during April.

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Acorn Woodpecker

1800 NEST RECORD

6 June Checked 82-83 nest hole 5 ~ 3 day eggs
should hatch ~ 15 June
band ~ 8 July

13 June Measured 5 eggs
① 23.8 x 19.7
② 23.6 x 19.6
③ 25.0 x 19.4
④ 25.3 x 19.4
⑤ 22.7 x 18.9

28 June Peeped in, 1000: 4 13 day babies

~~10~~ 7 July Ir + Philip band 3 nestlings here. Don't know
what happened to the fourth. Maybe fell out.



Melanerpes formicivorusHaystack Blonquist

8 March 0930-1000, Hay Blom still looks abandoned: No sign of reoccupation, despite warm, sunny weather.

9 March ** GROUP UPDATE **

① Juvs 936, 937, 938 NSAB 19 July 1983

Although one was probably alive on 14 Sept.

② Hay Blom (♀604, ♀711, ♂571) abandoned 28 Sept 1983 ± 2 weeks. On 14 Sept 1983 acorn survey, I saw one adult ♀ and a juv. in the granary.

Birds were gone for good 12 Oct 1983

23 March 0900, I flush a woodpecker out of the fence-line nest tree here. The bird flew to the trees around the poison oak patch, then continued on to the Low Hay area. 0910, a ♀NB gives 4 garricks right at the summit of Haystack. Then at 0925, I spot a second ♀NB (both ♀♀ in sight at one time) poking around in the granary. This latter ♀ later flew off to the fence-line tree. These two ♀♀ are clearly not a unit. In fact, both seemed to be operating alone, without ♂♂. The second ♀ seems to be pretty much in residence here, but solo.

27 March 1220, First watch after installation of artificial granary and acorns on 25 March. 1245, No evidence of any birds around, and no evidence that anybody's been eating the acorns. Perhaps the ♀NB of 23 March was an early visitor.

5 April Saw the Low Hay Birds fly over here (♂571 + ♀NB) and I find still 75 acorns in the "granary"

Acorn Woodpecker

Hay Blom13 June

** GROUP UPDATE **

- ① ♂571, ♀604, ♀711 found Hay Blom 11 May 1984
all were at Low Hay April - 11 May.

Melanerpes formicivorusLower Haystack

8 March Watching 1000-1030; Warm, sunny day, but no evidence of any birds here yet.

9 March ** GROUP UPDATE **

① Juvs 923, 924, 925 NSHB 29 June 1983

② ♂857 disappeared 1 July 1983 \pm 2 weeks.

(present during spring granary censuses, absent summer; see Philip's notes).

③ Low Hay (♀587, ♀524, ♂NBI1880, ♂858, ♂♂NB [1886], ♂J926) abandoned 18 Aug 1983 \pm 3 weeks

Last seen (all birds) on 23 July. Absolutely nobody seen in fall acorn survey 14 Sept, 12 Oct.

23 March Good news here! Low Hay is occupied by 3 banded birds.

They are: ① ♂721 ^{M / Lbrn - yellow} Yellow / Lbrn - yellow and ② ♂723 ^{M / Dbrn -}

Dbrn - Lpink(N) / Lpink, both from Plaque, and both

apparently forced out by ♂521 in Dec. br! With ^{Dbrn - Lpink(N) / (Lpink or Orange)}

them is ♀ ^{Dbrn - Lpink(N) / M} who I can't

find ~~out~~ on the 83 field list. Will have to check

her out. Anyway, these 3 birds seem fairly well

established here. All 3 were in the granary when I

walked up at 1000, but I didn't confirm ID's until

1120.

Hmm! My color blindness strikes again! Only ♀

I can square is the 10-g lost ~~88~~ ♀650 ^{D Blue-yellow(N) / -yellow} " / M

(Formerly of Blom1). Not absolutely sure, of course.

This will take another look.

27 March 1250, First watch here since artificial granary w/ 100 acorns installed on 25 March. 1330, Musical Chairs!

Acorn Woodpecker

Low Hay

(27 March) Instead of seeing ♂721, ♂723, and ♀650, I see two completely different birds! They seem to be ♂571 ^{LBlue-Black/LBlue}_M / ^{LBlue-Black}_(pretty sure) and a ♀ whose bands I read as Lbrn-Dbrn/White (or something like that: sure of the light-dark split, pretty sure of white, certain of metal). They seem at home and well established. What's going on? Interesting that ♂571 would come to Low Hay when his old haunts of Hay Blom + Gazebo appear to be available.

1350, Now ♀650 shows up ^{DBLue-rein}_(M), leading to the suspicion that the other ♀ is her ~~dis~~ immigration partner ♀649 (or 648?). I will have to check.

No activity on the granary bins, but I count only 75 acorns remaining.

5 April Here 1200, ♂571 ^{LBlue-Black/LBlue}_M / ^{LBlue-Black}_(pretty sure), plus a ♀ which I am almost certain is unbanded. Both sit in the granary ~10 min, then fly off toward Hay Blom. (Philip has seen these birds. Or at least ♂571) filching acorns from Hay Blom.

13 June ** GROUP UPDATE

① ♂571 founds Low Hay 27 March 1984

② ♀604 ♀711 move to Low Hay 9 April 1984

These 3 birds controlled Low Hay + Hay Blom until 11 May, forced to leave by ♀524, 2 ♂NB1

③ ♂571, ♀604, ♀711 move to Hay Blom 11 May 1984

④ ♀524 ♂NB, ♂NB (1892 1893) move to Low Hay 11 May 1984
 ♂NB may be same as ♂3 ♂NB

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Acorn Woodpecker

Low Hay NEST RECORD

16 July Banded 3 young ~ 24 days old here in the "usual"
(1982-1983) nest hole. Philip had found the
nest earlier. See his notes.

Acorn WoodpeckerGazebo9 March

** GROUP UPDATE **

① J932 NSAB ~~80~~ 7 July 1983② ♀570 disappeared 20 March 1983 ± 2 weekslast seen at Gazebo 5 March. Gone by the beginning of April or so (see Susan's notes).③ Gazebo (♀653, ♀819, ♀820, ♂822, ♂821, ♂836) abandoned 7 Sept 1983 ± 1 month, ♂718 and♂836 were there 3 Aug. Everyone gone from Gazebo10 Oct, ♂836 probably died, because his sibs

(♂717, ♂718) returned to CV Grande. The two ♂ helpers

~~821~~ (821 and 822) may have left the group earlier but its hard to say.④ ♂717, ♂718 returned to CV Grande 7 Sept 1983 ± 1 month.⑤ 3 Juvs (933, 934, 935) all seen 3 Aug 1983, Abandoned Gazebo 7 Sept 1983 ± 1 month.12 April

A quick stop here, 1200, no evidence of any birds around.

13 June

** GROUP UPDATE **

① ♀653, ♂717, ♂718 found Gazebo 17 April 84

♂717, and to a lesser degree ♂718, were at Blom 3 during late March and the first half of April

1984 R.L. Munne

Acorn Woodpecker

Gazebo NEST RECORD

13 June Flushed a bird out of 83 (low) nest hole

15 June Checked nest: 4 eggs, 3-4 days old

① 27.8 x 19.0

② 27.2 x 19.0

expect hatching 23-24 June

③ 26.2 x 18.7

Band 15 July

④ 26.1 x 19.0

27 June Checked nest 0815: 4 babies, ~3-4 days.

Band ~ 16 July.

16 July Banded 4 nestlings. All 4 were very poorly developed, of low weight, and half starved.

Acorn Woodpecker

Blomone9 March

* * GROUP UPDATE * *

① Juv 920 NSAB 12 July, 1983② Blomone (♂492, ♂830, ♂832, ♀808, ♀809, J921, J922)abandoned: 25 Aug 1983 ± 6 weeks. All birds were
seen 12 July gone 10 Oct.11 MarchWalking past at 0920, Philip & I see ♂717 ^{Yellow-Red/Yellow} Yellow-Red/M
of CV Grade, exploring the granary, poking around in storage
holes, having it all to himself. Philip watched here 9 March
and didn't see anybody. Whether he sticks around remains to be seen.5 AprilA look here, 1245, reveals a single ~~bird~~ ♂ whose
bands I read as M/Black. Sounds like it could
be ♂492 returning, but I'll need a better look to
eliminate the possibility of ♂571. No evidence of
other birds around. 46 acorns remain in the styrofoam.7 April34 Acorns and no birds here at 1200. Philip watched
for 2 hours from the blind and saw nobody.9 AprilA quick look here on a windy, chilly afternoon, I find
a ♀NVB alone in the granary. 0 acorns remain here12 AprilPassing by last night I saw a lone bird here, but I
find nothing 0830-090026 AprilVery breezy watch 0900-1000. I see ♂492 ^{Or / Blk} M/Blk
♀812 ^{DBlue / Blk - L Pink} ♀808 ^{M / Grn - Blk} or / , and ♀
809 M / (while ♀812 is sight elsewhere). This isthe same situation. Philip reported 23 April, though
I saw ♀812 + ♀808 at CV Grade the same day.Also saw ♀854 of Gate intruding here. (Note: By this
date, ♀854 was probably moving to OK Corral)

Acorn WoodpeckerBlom 113 June

** GROUP UPDATE **

- ① ♂492 founds Blom 1 5 April 84
- ② ♀808, ♀809 return to Blom 1 23 April 84
(these ♀♀ shuttled to & from CV Grade during late April)
- ③ ♂♂830, 832 return to Blom 1 3 May 84

Acorn Woodpecker

Blom 29 March

** GROUP UPDATE **

① Blom 2 (♂846, ♀847) abandoned 17 Aug 1983 \pm 2 monthsLast seen by Philip 25 June: Gone 10 Oct.

Acorn Woodpecker

Blom 39 March

** GROUP UPDATE **

① Juvs 910, 911, 912 NSAB② ♀767, M769, M839, ♀841 disappeared 15 March 1983
± 2 months, All caught in 9 Dec ambush, not seen again
+ missing 1 July.③ ♂768, ♂840, J913 ~~disapp~~ abandoned 21 Aug 1983 ± 6 weeksLast looked at 1 July; Blom 3 abandoned by 11 Oct7 April

< 5 acorns remaining here in styrofoam granary. See Philip's notes. It seems likely, that Blom 3 may now be occupied, by ♂717, ♂718, and a ♀NB. ① These 3 birds were hanging around here (between Gazebo, CV Grade, + Blom 3), while Denise, watching CV Grade at the same time, saw ♀NB + ♂837. ② The ♀ with ♂717 + ♂718 drummed, not to be expected of an old resident ♀, if indeed that's who she is.

1135 Yes! Back in the Blom 3 granary are ♂717, ♂718, ♀NB. Sehr Gut. Lots of waiting here too. I'm now certain that Blom 3 is occupied by these 3 birds.

12 April

A quick look, 0945, reveals ♂717 and a ♀ with a very heavy left mustache. Back by 1100, I find that same ♀ (♀NB) + ♂717 again, but no trace of ♂718. Not even a suggestion that a 3rd bird might be around.

13 June

** GROUP UPDATE

① ♀NB founds BLM3 30 March 84 (♂717 ♂718 with her until late April)② ♂768, ♂769 return to BLM3 1 May 84

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Acorn Woodpecker

Blom 3 NEST RECORD

27 June 1100, Found surprise nest in Valley Oak in hollow between Blom 3 + Gazebo + CV Grande.
2 @ 18-day nestlings, banded 944 + 945.

Acorn Woodpecker

Dark Hollow

9 March

** GROUP UPDATE **

① ♂824 disappeared 10 June 1983 \pm 2 weeks:

Present 24 May, missing 30 June

② ♀825 disappeared 13 May 1983 \pm 1 week.

Present 2 May, gone by 24 May.

③ Dark Hollow (♀695, ♀696, ♂584) abandoned DH
7 Sept 1983 \pm 1 month. ♀695 ♂584 seen here
on 3 Aug. Clearly abandoned by 11 Oct).7 April0815, wonder of wonders, ♂584 ^{M / BPink} Maave has
reoccupied Dark Hollow. He's here alone, harritin,
and occasionally drifting into long bouts of garricks.
No evidence of other birds, though ♂584 has wakard to
himself occasionally, also checking out the 83 nest hole.
Still 25 acorns in the granary.1030, after seeing a ♀NB fly this way from CU2,
sure enough, I come over and find a ♀NB with a ♂ (assumed
♂584). She ate & worked on an acorn for a while, then
took off solo up toward the Noak knoll of Blom-e.
She wakard once to ♂584, but I'm sure it's premature
to consider her part of the group.1035, ♀ + ♂584 return for a moment, the ♀ takes off
toward Gazebo. ♂584 harrits + garricks for ~2 min thereafter.12 AprilAnother change! 1000 I find ♀819 ^{M / Yellow-white} Red / white-yellow of
Gazebo, here instead of ♀NB. Also saw ♂584 ^{M /}.
♂584 chased ♀819 mildly a few times, but ♀819 has
looked pretty persistent. < 5 acorns remain in the
styrafoam here, though I saw ♂584 with a bit.

Acorn WoodpeckerDark Hollow

23 April 0630-0730, I confirm what Denise has been seeing. Dark Hollow now has is 1982 composition: ♂584, ♀695 ^{m/Mauve} and ♀696 ^{Or-wht/or-Blt}, all here & seen well. Also a lot of intrusion, including ♂721 ^{m/Lw-Yellow} from Plaque.

15 May After flushing a ♀ from the 83 nest hole, I return with the rope ladder but find no eggs.

16 May Watching here 0605: Su-uagu-, at 0705 ♀695 entered the hole, left at 0725. I climb up and find 1 fresh egg ~~the~~ 26.1 x 19.1 mm. Nothing really unusual about the egg. All 3 birds (♂584, ♀695, ♀696) seen well. By 1100, Nobody except ♂584 had entered the hole, though ♀696 had taken a good long look at it. With Beth watching with me, a long wait, but 1145, ♀696 enters finally, then flies out immediately with the egg in her bill! Yeah! Carried to the 82 nest tree, but then I lost track. Yessir, ♀695 laid, ♀696 (the victim the previous two years) tossed! Beth's first egg toss

17 May Watching 0615 ~~at~~ 0740, Nothings up. Both ♀♀ paid brief visits to the nest. But no eggs laid.

19 May Watching 0555. 0608, ♀696 enters, ♀695 follows at 0615. ♀695 leaves at 0625 followed by ♀696 at 0630. Both ♀♀, ~~then~~ plus ♂584, were then in & out of the hole a few times. At 0640, I climb up to the nest and find one fresh egg, probably laid this AM between 0608 + 0630 ~~by~~ by ♀696. Didn't bring the calipers, but the egg is fairly round, heavily marbled,

4 birds here
one extra male
possibly
♂584

Acorn WoodpeckerDark Hollow

(19 May) and had a wildly asymmetric air cell. I'll check 1982 + 1983 notes, but this sounds like ♀696's eggs 0730, both ♀♀ have had at least one shot at removing the egg (normal) so I think I'll split.

20 May Checked nest with Beth, 1700. 3 eggs
 ① 24.5 x 19.5 very asymmetric air cell (♀696?)
 ② 25.1 x 19.4 very asymmetric air cell with pinhole ^{marbled} (♀696?)
 ③ 24.2 x 19.9 slightly asymmetric air cell ^{marbled} (♀695?)

22 May Checked nest here 0530. 4 eggs,
 ④ 24.5 x 20.1 slightly asymmetric air cell ^{marbled} (♀695?)
 checked nest 0900 5 eggs

⑤ 24.7 x 20.0 no air cell, heavily marbled, (♀696?)

23 May checked hole, 1630 6 eggs
 ⑥ 27.0 x 18.9 slightly off-center air cell (♀695?)

Expect hatching 2 June

25 May Checked nest, 5 eggs: Egg ② had broken, presumably from pinhole.

2 June Nest Empty, Failed at egg stage. Predation?

13 June * * GROUP UPDATE

① ♂584 founds Dark Hollow 7 April 84

(♀NB, ♀819 of ~~42180~~ Gazebo with him in early April

② ♀695, ♀696 return to DH 23 April 84

③ ♂824 returns to DH 19 May 84

29 July 4 nestlings banded from very late 2nd nest in Live Oak NE of grove

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Acorn Woodpecker

Dark Hollow Nest Record

See notes: Clutch of 6 eggs completed 23 May.
One egg broke by 25 May. Nest failed, completely
empty on ~~24~~ 2 June

Both ♀♀ laid here

29 July -- 4 Nestlings banded from very late

See nest -- See F.

Acorn WoodpeckerCorral Viejo Canyon9 March

** GROUP UPDATE **

① CV Grande -- a ♂717, ♂718 returned here in September 7 1983, \pm 1 month, present in October with a ♀NB and ♂837 (see Sady's notes)

② CV #1 -- abandoned 12 Aug 1983 \pm 2 months

~~at both abandoned~~ ③ CV #2, OK Corral -- Both need a bit more work to figure them out. Sady saw a banded bird on 16 Feb at CV#2, nothing much at OK corral.

11 March

Quick look here, 0930-1130. No evidence of any activity at either CV#1 or CV#2. At OK Corral, however, I flush a harritting bird as I walked up at 1040, but it had not returned as of 1130. It perched for a long time in the trees uphill from the granary before flying off to the east, up the ridge. It looked like it belonged here. Also, at OKC it looks like the granary may have been in use this year. Not true at CV#2

7 April

A bit of luck at CV#2 0845-0920 I find two birds; ♀NB and ♂849 ^{M / LPink-DBrn} Orange / DBrn-LPink of from OK corral! Maybe more birds here. Also a second un-banded ♀ chased vigorously by the other ♀. The second ♀ then flew off toward Dark Hollow, where ♂584 was advertising vigorously earlier (see DH notes). ♂849's presence at CV#2 leads me to suspect that nothing is up at OK corral. Heard no activity from OK corral while at CV#2, and a brief watch here 0920-0940 indicates no activity + no birds at OK corral. Whoa, just as I'm ready to leave OK Corral, a

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2

Acorn Woodpecker

Corral Viejo Canyon

7 April banded ♂ shows up that proves to be old ♂769 M ^{Blk-Yel/Red-Yel} / ^{Blk-Red} of Blom 3! However, he looks like just a visitor here, tamely poking around in the granary for a while, then flying off. I wonder if he is established at Blom 3, or is at large?

1015, 20 min at CU#1 reveals no activity here.

1115, Denise reports ♀NB and ♂837, but no others, at CU Grande, while Philip + I see ♀NB (drumming), ♂717, ♂718 in the tension zone between CU Grande, Gazebo, Blom 3. Could the ♂♂ 717 + 718 be trying to move to Blom 3, & is the ♀ with them separate from the ♀NB at CU Grande?

23 April 0745, at OK Corral I find a ♀NB alone in the granary, then ♂849 M ^{M/LPink-DBreen} / ^{Drad/DBreen-LPink}. He was at CU#2 on 7 April. This ♀NB is fairly persistent, garricking occasio-nally and walking to herself + starlings.

0830. New developments. ♂883 M ^{Red-Or(N)/Or} / ^{Red-Or(N)} is here. Remarkable, because he may be the only 1983 nestling (other than a few on the Arnold) to return. Can't figure out who else it could be.

→ Also saw him eat a Sceloporus! Saw him tugging at its e-trails, then eating them. He seems well off w/ the ♀NB here. Perhaps. ♂849

was visiting from CU#2. No! ⁰⁹⁵⁰ After watching at CU#2 I found 2 ♀NB plus ♂843 M ^{Yellow/LPink} / ^{LPink}. I then return to OK Corral + find 4 birds! ♀NB, ♂883, ♂849, and ♂853 M ^{LBlue/Red-LBlue} / ^{Red-LBlue}. All 4 birds seen

Acorn WoodpeckerCorral Viejo Canyon

(23 April) pretty cozy. Looks like a good group. Fairly tame, it seems, too.

1030, on to CU#1, and it is ~~new~~ occupied now by at least 3 birds, 2 ♀NB and 1 ♂NB. Intruding here during the brief time I watched were ♂721 from Plaque (he intruded at D follow earlier) and the longlost ♀785 DBLue-rel / LBlue of 1800!

1145, Now at CU Grande where more new developments. I see ♂837 ^{M/or} or-wht / LPink ♀NB plus two CU Grande returnees: ♀812 ^{DBLue / BLK-LPink} M / LPink-Black and ♀808 ^{M / LGrn-Blk} Or / BLK-Lgreen. The only bird I don't see that I expected to see was ♀809, who Denise saw clearly a few days ago. Perhaps she is at Blomone

28 April With Denise at OK Corral, I find that the ♀NB of 5 days ago is gone, and ♀854 ^{LGrn-Yellow / LPink} M / of Gate is here instead, garricking regularly. See Denise's notes

2 May At OK Corral again. Power Struggle of ³⁰ May (see Denise's notes) has ended, and a ♀NB (probably the same one as 23 April, makes for herself etc), is back. ♂849 + ♂853 also here, but I don't see ♂883

22 May ACU tour: ~~0630-0720~~ 0550-0720, at CU#1 Find ♂NB, 2 ♀NB, plus ♂728 ^{M / Or-Red} LPink / Or-Red (1982 CU#1 nestling), apparently looking quite cozy with the other residents. At CU#2, I confirm ♂843 + 2 ♀NB, just as a month ago.

Acorn WoodpeckerCorral Viejo Canyon13 June

** GROUP UPDATE **

CU Grande

① ♂717, ♂718 Move from CU Grande 1 April 84
(see Blom 3, Gazebo notes)

② ♀812 returns to CU Grande 23 April 84
(back + forth between BLM + CUGR in ^{late} April)

CU #1

1895, 1896 1897

① ② ♀NB, 1 ♂NB found CU #1 15 April 84

② ♂728 returns 15 May 1984

CU #2

① ♂813 Disappeared 5 Feb 1983 \pm 2 months

② J814 NSAB

③ ♀815, ♀842, ♂845 disappeared 1 July 83 \pm 2 months

④ ♂844 disappeared 7 Nov 1983 \pm 2 weeks

⑤ 2 ♀NB (1898, 1899) move to CU #2 15 April 1983

(♂843 may have abandoned CU #2 after Oct. Notch)

OK Corral

J883 J886

① ♂849, ♀850, ♂851, ♀852, ♂853 All Abandoned
OK Corral 1 Sept 83 \pm 2 months

(possible that ♂849 stayed all winter)

② J884 J885 NSAB

③ ♂849', ♂853, ♂883, ♀NB ¹⁹⁶⁰ found OK Corral

15 ~~1983~~ April 1984: (♂849 at CU #2 7 April 84)

④ ♂886 returns to OKC 11 May 84

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Acorn Woodpecker

CV Grade NEST RECORD

23 May Denise reports a ♀ looking out of the 82-83 hole.
I climb up at 1800 + find 4 small eggs, ~ 4-5 days

① 23.2 x 18.1

② 21.5 x 17.0

③ 22.6 x ~~17.0~~ 17.4

④ 24.2 x 17.9

30 May Check nest, 4 eggs not yet hatched

1 June Check nest, still 4 eggs not hatched

3 June Weak peepings from inside holes, I suspect eggs
have just hatched. Should Land ~ 25 June

12 June 1600, 3 healthy babies here

25 June Banded 3 healthy young Juvs 941 943
~~941~~ - ~~943~~!

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Acorn Woodpecker

CU#2 Nest Record

all birds

19 July

Walter + I banded two nestlings (Juv 959 + 960)

in nest in low dead stub of main granary tree.

Young ~ 20 days old, quite healthy.

Acorn WoodpeckerWestgate9 March

** GROUP UPDATE **

① Westgate (σ^758 , σ^692 , η^855) abandoned 1 Sept 1983
 \pm 1 month. All 3 seen 1 Aug. Clearly abandoned
 by 6 Oct (probably by 11 Sept, as no birds seen
 or heard during acorn survey.

27 MarchArtificial granary, 100 acorns installed ~~26~~ 24 March.

0900 - 0930 27 March, No evidence of any birds here
 yet. "Granary" looks full.

24 April

1030 - 1230, It looks like σ^626 or $\sigma^{\text{DBLue-Wht(N)}}$ and
 η^855 $\sigma^{\text{DBLue-BRk(N)}}$ / $\sigma^{\text{DBLue-BRk(N)}}$
 " " / M are set up here. Never

Saw either of these birds move toward Gate, and they
 seemed to be operating independently.

24 May

A quick look 0730 produces both σ^626 $\sigma^{\text{DBLue-Wht(N)}}$
 $\sigma^{\text{DBLue-BRk(N)}}$ / " "
 and η^855

13 June

** GROUP UPDATE **

① σ^626 , η^855 found WGate 15 April 1984

σ^626 was at Gate 6 April, WGate 24 April

Acorn Woodpecker

Gate14 March

** GROUP UPDATE **

① ♀685, ♀788, ♀789, ♀791 left group 27 April 1983 \pm 1 week

All 4 were around during power struggle 18-19 April, seen peripherally for awhile, then never again

② Gate (♂626, ♂627, ♂790, ♀854, ♀856, ♀859, ♀NB (1885), J927, J928) abandoned ~~BLIND~~3 Sept 1983 \pm 1 month. ♂627, ♀859, ♀NB,+ both juvies seen 1 Aug. Gate clearly abandonedby 2 Oct. Some of the above birds probably disappeared before abandonment, but I can't say for sure22 March

1000, I flush two birds out of square nail flat, which fly across Finch Creek and way over to the far "westgate side" of Corral Field. Don't know if these are real Gate or westgate residents, but the situation bears study

23 March

Sharon reported birds here again today. 1430-1530, I find nobody.

27 March

First watch here, 0900, since installation of artificial granary 24 March. NO evidence of anybody here by 0930. Looks like the granary is completely full, too.

6 April

Confusion here the last two days, but here's the story.

① 24 acorns remain at Gate granary, 0 at westgate, on 5 April.

② Looks like 5 birds here, ♂626, ♂627, ♀NB, ♀854 + ♀859

I co-located ♂626 yesterday ^{M/DB (blue-whit (N))}, see Philip's notes for

♂627, ♀854, ♀859. I co-located ♀NB. 1 ♂ + 3 ♀♀ seen together at one time. Birds using both Gate + westgate

Acorn WoodpeckerGate

24 April Trying hard here, but with minimal success 1030-1230
I find ♂627 ^{LPink / DBlue} and ♀859 ^{M / Black}

plus at least a 3rd bird. ♂626 seems to have set up shop at Westgate with ♀855. See Westgate notes.

30 April Finally, success here. Over in the saptree live oaks in squaremail flat, I find ♂627, ♀859, plus a ♀NB. This should be a complete census, what with ♀854 at OK corral (see Denise's notes) and ♂626 + ♀855 at WGate.

24 May Amazing good luck here. I walk up from Pipeline at 0730 + find 4 birds perched on the same branch: ♂627, ♀NB, ♀854, ♀859, all seen well. ♀854 is back after an aborted attempt to move to OK Corral. See my OKC notes, + Denise's notes. No sign of any nesting activity.

13 June * * GROUP UPDATE

① ♂627, ♀854, ♀859, ♀NB(1885) All found
Gate 2 April 1984

(♀854 tried to move to OKCO in late April. The ♀NB is almost certainly the same as last years)

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Acorn Woodpecker

Pipeline

9 March 1140 - 1210, no evidence of birds here yet.

14 March ** GROUP UPDATE **

① J887, J888 NSA B

② ♂660 moved back to Plaque 1 Sept 1983 ± 1 month

see Plaque notes

③ ♀703, ♀704^{J889} abandoned Pipeline 1 Sept 1983

Pipeline clearly abandoned by 7 Oct. J889 may have disappeared before abandonment. He/she was hanging out at Plaque in late July

10 April Here ~~at~~ 1445 - 1300, no evidence of birds here

24 April Here at 1215, I find ♂660 DBLue/white, who was at Plaque on 20 April but missing from there 21 April. Surofagan, also here is ♀703^{Yellow/Mauve}! Perhaps ♀705 will show up, too?

24 May Nobody here in passing. No birds seen at Pipeline since 24 April, & ♂660 has been back at Plaque

Acorn WoodpeckerWarp 5

9 March First trip up here since last summer, to confirm what was easily anticipated. Warp 5 appears to be abandoned: No sign of acorns in the granary. Watching from 1110 - 1140, no trace or evidence of live birds here, either.

14 March ** GROUP UPDATE **

① J863 J864 NSAB

② Warp 5 abandoned 15 Sept 1983 \pm 3 months

A wild guess, really. ♂636, ♀NB, and a 3rd bird (♂528?) last seen on 23 March

10 April Scanning the treetops here from Pipeline, 1450. No sign of any birds here yet

15 May Ann found the leg + feathers of ♂528 M / DBLue-DRK today, along the creek between Road 1 + Pipeline. The remains were obviously recent! I suspect ♂528 (and maybe ♂636?) have returned here. Need to do a watch or two at Warp 5.

13 June ** GROUP UPDATE **

① ♂528 Returned W5 ~ 25 April 1984

② ♂528 Found dead W5 8 May 84 \pm 1 week

See Denise's notes on watches here 23 + 24 ^{May} ~~1984~~

~~14 June~~ ♂660 + ♀685 (of Gate) here on those days

Probably both have moved here, though ♂660

shuttles to Plaque in the afternoon

~~14 June 1984~~ ~~♂660 + ♀685 found W5 18 May 1984~~

14 June
deleted

14 June No, ♀685 looking settled at 1500 with ♂297 + ♀601

Acorn WoodpeckerRoad 115 March

** GROUP UPDATE **

① ♂294 disappeared 7 May 1983 \pm 1 month.

Last seen on 10 April, certainly gone by 5 June

② ~~1876~~ 1876 found dead on road 29 July 1983③ ♀269 disappeared 6 Dec 1983 \pm 1 week.

Last seen 28 Nov: Gone by 14 Dec (Sady Spon)

④ ♂580 disappeared 1 Nov 1983 \pm 1 week

last seen 20 Oct, gone by 10 Nov

⑤ ♂672 disappeared 4 Dec 1983 \pm 1 week

Last seen on 25 Nov: Gone by 14 Dec

⑥ ♀578, ♂579, ♀804 disappeared 1 Sept 1983 \pm 6 weeks

all last seen 21 July: Gone by 13 Oct

27 March

Glaring here while checking Finch: A nice

surprise: ♀269 ^{DBlue-Inten}M is back! Shelooks fine, except for what seems to be a slightly injured left eye. Also saw ♂486 ^{DBlue-Or/Wht-Or}

and a ♀ that I suppose is ♀383, Missing a bad

Yellow/NB

~~missing~~ Yellow-Dbrn/M. I need more data to confirm that, though.13 April

A quick glance here, I see ♂486, ♀269, ♀383 in the sycamore granary. All present & accounted for.

20 April

Routine granary census. ♂486, ♀269, ♀383 all seen well.

No evidence of nesting activity, and the birds seem to have a few acorn scraps remaining. ♀269's left eye seems to be improving somewhat.

4 MayGranary census, but not routine: ♀578 ^{M/Wht-L Grn.} Yellow/Wht-L Grn appears out of nowhere, looks cozy with the others here

Acorn WoodpeckerRoad 1

30 May Lots of developments here. Yesterday afternoon and this morning I find ♂486, ♀269, ♀383, plus ♂579, ♂580, ♂672, ♀804! Wow, old home week. ♀578 might have been here, except she was taking part in a minor power struggle at Plaque and somehow badly injured her wing. Walter found her in the Lower Barn area and took her to the aviary on 28 May (see Plaque notes). No evidence of a nest at Road 1.

13 June ** GROUP UPDATE **

- ① ♀269 Returns to R1 20 March 84 (First seen there 27 March)
- ② ♀578 Returns to R1 4 May 84
- ③ ♀578 Removed 28 May 84

(Apparently injured in Plaque Power struggle; Placed in Aviary)

- ④ ♂579, ♂580, ♂672, ♀804 return ~~20~~²⁴ May 84
(♂580, ♂672 at Road 3 27 March - 14 April)

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Melanerpes formicivorus

Finch

9 March Watching 0940-1000: No sign of anybody returning here yet. In fact, I saw a Flicker working on the Finch 80 and 82 nest hole. Bad sign.

15 March ~~Update~~ ** GROUP UPDATE **

① Finch (♂63, ♂66, ♀541, ♂542, ♀543, ♂613, ♂616, ♀816) abandoned. 1 Sept 1983 ± 1 month
Complete census there (except ♀816, see 22 June) on 9 July. Birds were ~~gone~~ getting hard to find (saw none in a couple of tries in early ^{4 Aug} August) by the end of July, clearly gone by 8 Oct
⁰⁸³⁰

27 March First watch here since installation of the artificial granary, with 100 acorns, on 24 March. 0900, No sign of any birds and the "granary" is still full of acorns.

6 April 1110, 43 acorns still remain in the styrofoam. The big news is, Finch has birds! ♂542 ^{LB}Blue-or / ^{LB}Blue here plus another bird I read as M / Yellow-(Red or DGrn) which might be ♂616 (though I first thought it was ♀). Interestingly, they chased out two intruders which were undoubtedly ♂669 + ♀601 "of" SHill! Both were at SHill yesterday 1205, ♂542 garricks from ~~ME~~ NW corner of bridge, and in flies ♀269 M / wht-DBlue. This may have been the bird I saw earlier. Right now it looks like ♂542 is all alone.

9 April 1100 ^{M / Grn-whit} Bad Crazyess here: ♂542, plus ♀789 Grn-Blk, Yellow or Gate. ♀789 is chasing ♀601 (of 1500-SHill-whatever) all over the place. Constant, continuous, persistent chasing. So far ♀789 is holding the upper hand, but ♀601 is persistent. Anytime ♀601 manages to perch for a few seconds, she garricks! ♀601 was missing at SHill yesterday (Philip)

TOTAL DEFENSES:

INTRASPECIFIC

INTERSPECIFIC

Acorn WoodpeckerFinch

10 April After the turmoil here yesterday, things are quiet when I arrive at 1400. Just had an interesting thought: ♀601 and ⁷⁸⁹♀~~1601~~, who were squabbling so violently yesterday, ~~are~~ are sisters! Both were offspring of Gate's ♂626, ♂627, ♀519, ♀601 in 1980, ♀789 in 1982. ♀601 even helped feed ♀789, before ♀601 moved to 1500. I suspect they have never been "introduced", and they were not reared together.

1410, ♂542, ♀789 both here, very calm, no sign of ♀601 or other intruders. ♀ Acorns left!

13 April Well, chaos again at Finch. I find out the following

- ① ♀601 is back, ~~dominant~~ and she is in control. No sign of ♀789. ♀601 was wakening vigorously with ♂542, and chasing out intruders, one of which was ♀685 L~~Blue~~-red/L~~Blue~~ her sister, and ♀789's sister from Gate. Man, what a coincidence. Also a ♀NB around. Lots of vigorous chasing, a "mini power struggle"
- ② One of the "old ones" is back, none other than ♂63 ^{Green-BLK/Green-BLK} " " " " ! He is definitely here, but seems to be keeping a lower profile than either ♂542 or ♀601. Did see him exchange waxes with the other two birds

19 April Here at 1300 after Philip reported a power struggle in progress
17 April, Very calm, but cool + windy.

20 April Here with Philip + Beth, 1030, a ♀NB is in control here. ♂542 and a second ♂ (assume ♂63) also seen. This is Finches 3rd ♀♀. A fair amount of chasing earlier, but now quite calm.

1984

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3

Acorn Woodpecker

Finch24 April

Well, another change at Finch. Philip reported a flareup of the PS on 22 April, but the ♀NB was maintaining control. Here at 0930, I find ♂542 and, of all birds, ♂789 ^{m / Grn-white} Grn-Blk/Yellow, who was "the ♀" here for at least a few days earlier this month. No sign of a ♀NB. Didn't see ♂63, but Philip reported him here 2 days ago.

4 May

MOAN! I quick look here, I see 3 birds, 2 IDEAL ♂542 + a ♀NB! Will it ever cease!

14 June

** GROUP UPDATE **

① ♂542 feeds Finch 2 April 1984

② ♂63 returns to Finch 13 April 1984

③ ♀NB (1901) moves to Finch 25 April 1984

④ ♂613 returns to Finch 24 May 1984

(♀789, ♀601 both at Finch in late April

♀601 on 9 April, ♀789 on 9 April + 24 April

M. formicivorusMacFlat

9 March 1000 - 1020, No evidence of any birds here yet.

15 March * * GROUP UPDATE * *

① J902, J903, J905 NSAB

♀1887 (NB)

② MacFlat abandoned 12 Sept 1983 ± 1 month

♂540

♂282

J904

Saw ♂540 and a juvie sapsucking 4 Aug.

Gone by 20 Oct. Many of these birds may have disappeared before abandonment

Acorn WoodpeckerRoad 3

9 March 1025: Nothing happening here yet: By 1055, no birds seen or heard.

15 March ** GROUP UPDATE **

① J898 not seen after banding (NSAB)

② Road 3 abandoned 20 July 1983 \pm 1 week.

Birds (σ^7654 , σ^792 , J897) last seen 6-7 July.

Nobody seen in 9 hours of observation

14, 15, 16 July, then 2 Aug. Thus, fairly

clearly a very early abandonment (by σ^7654 , σ^7265 , σ^7710 , σ^792 , σ^7794 J897)

22 March Watching here again, 0850. 0930 Holy Cow! there are birds here. One is a σ^7NB (rats!) but the second is a banded σ^7 who I read as ^{M / D Blue} Red-Yellow/Orange or something like that. Looks like a pair here.

A bit of wakaing, and both the σ^7 & the female poked around in the granary a bit. Incidentally the limb of the sycamore that overhangs the road has broken in half (at the site of that horrible nest hole they were building a few years ago. This means the loss of a few hundred storage holes.

Who is the σ^7 ? Can't square him with anyone, the 83 field list. Perhaps a bird banded by Walter in 1980 on PO Hill? Strange combination, so that could be. Yes, checking the color list, it seems almost certain that the σ^7 is σ^7552 ^{M / D Blue} Red-Tan/Red, banded by Walter at PO #4 in 1980.

Acorn Woodpecker

Road 327 March

0745

First watch here since 24 March, when Philip + I installed a piece of styrafoam with 100 acorns.

There are 3 birds here: Two ♂♂ in the Valley Oak as I drove up, but I didn't get bands. Plus a ♀ whose legs I did not see either.

0815 Great stuff! Now the 2 ♂♂ are

♂580 ^{White/Black} M / Black + ♂672 ^{L Blue / DBLue-Yel(N)} DBLue-Yel(N) / M

OF Road 1! Saw ♂672 extract then eat of our acorns from the styrafoam. Also the ♀NB is here. She has been in both the 82 + 83 nest holes. Neat! All 3 chased a Starling at 820. 0825, many pounding on the styrafoam. Great! I suspect that the two ♂♂ forced ♂552 back off to PO Hill.

0830 check the "granary". Man, only ~45 acorns left in the styrafoam! Some have probably been restored, but the birds have taken to it well.

6 April

A quick watch here, 1015-1100. The situation here seems to have stabilized. ♂580 ^{Whit/Black} M / Black and ♀NB seen here. No acorns left in the styrafoam (gone by 31 March according to Philip). ♂672 not seen today, but wasn't a good watch.

13 April

0830-1030

Tried to watch here but birds aren't spending much time here. I did see a ♀NB and a second bird (is ♂672 gone), but they spent most of their time flycatching elsewhere on this hot sunny day. Did see a pair of Pigmy Owls investigating the "standard" nest hole.

1984

R. C. Munne

3

Acorn WoodpeckerRoad 3

14 April Added 100 acorns here, during a mini power struggle without scopes + bins, couldn't learn anything. Back at dusk for roosting I see ♀NB + ♂580, but no sign of another bird.

19 April Philip reports calm at Road 3 ~~♂654, ♂672, ♀NB, ♂654~~
^{17 April} ~~♂654~~, I come by at 1315, 19 April, see no birds and only 5 acorns remaining in the styrofoam granary. 95 acorns removed/eaten in 5 days by 3 birds, which is roughly 6 acorns/bird-day.

20 April Correction. 17 + 20 April Philip reports ♂654 and ♂792 (missing L Blue band) here at Road 3 with a ♀NB. They must have moved here about the time of the PS on 14 April. Don't know what

12 June Found nest here: See nest record.

14 June ** GROUP UPDATE

① ♀NB(1902) Found Road 3 20 March 1984

② ♂654 ♂792 Return to R3 17 April 1984

(♂552, ♂680, ♂672 variously at Road 3 during late March + early April)

1984

R.L. Mummie

Acorn Woodpecker

Road 3 NEST RECORD

12 June 1130, bird looking out of "traditional" 1980-82 nest hole

1200, Opened hole. 3 eggs, ~ 2-3 days

① 26.3 x 20.5 (slightly cracked [pipped], may not hatch)

② 24.6 x 19.0

③ 25.1 x 18.6 (hatch ~ 22 June, hatched July)

27 June Checked hole 3 babies!

16 July Banded 3 Babies 1949-951. One very healthy: almost ready to fly: ~~Others are~~
One a runt

Acorn WoodpeckerSchool Hill

22 March Up here 1405, after Jim reported hearing a bird up here on 20 March. 1545, slow, but for sure at least two (maybe 3) birds up here. One is undoubtedly σ^771 ^{Green-Black / Green-White} M / ^{Green-White}, banded at Low Hay in 1982, ~~one~~ one of the 3 1800 Breeding σ^771 last year. Also present is a bird that I didn't see sex of, but may be $\text{f}787$ ^{Red-Yellow / M}, also of 1800! Need a better watch up here to be sure of her, though. Both birds spent a bit of time poking around in the granary, and eating buds & trachins from the blue oaks NW of the granary.

5 April See Philip's notes for details of comings & goings following the acorn addition. Up here at 0830, Two new SHill residents confirmed: Both are old friends. σ^669 ^{Orange-DBlue / white} M / ^{Orange-DBlue} (1981 SHill nestling, then from Y) and $\text{f}601$ ^{Green-Yellow} M / ^{White-Green} (1980 gate nestling, then 1500) Great. They seem to be a good unit. Saw one of the birds eating a bit of acorns. Only 6 acorns left in the artificial granary, however. This ~~also~~ also explains Walter's observation of σ^669 and a f at Y yesterday.

11 April School Hill has changed again! 0830-0930 I find σ^669 waking & traveling around with a $\text{f} \text{NVB}$. $\text{f}601$, who was intruding at ~~the~~ Find on 9 April, was also here briefly, but obviously solo. She must have given up (or chased out). Also saw σ^769 ^{Blk-Yel / Red-Yel} M / ^{Black-Red} formerly of Blom3, who I saw intruding recently at OK Corral

1984

R. L. Mumme

2

Acorn Woodpecker

School Hill

6 June ** GROUP UPDATE **

① J872 NSAB

② School Hill ABANDONED 16 Aug 1983 ± 2 months
(♂86, ♂402, ♀260, ♂754, J873, J874)

Birds last seen 23 June; missing by 10 Oct

14 June ~~14 June~~

** GROUP UPDATE **

① ♂86, ♂402, ♀260 found SHIL 1 May 1984

1984 R.L. Mumme

Acorn Woodpecker

School Hill Nest Record

3/ May Peeped into 1983 SH nest hole: 4 babies
just hatched (eggshells present) ~ 1-2 day. I
should band ~ 20 June

June
6 ~~May~~

Checked hole again. Down to 2 nestlings

17 June

Nest failed! Empty at 0630:

1984

R. C. Mumme

Acorn Woodpecker

School Hill West

4 May

Up here 0930-1030, I find at least 2 birds here!
The ♀ is not banded, and I failed to get a look
at the ♂.

6 June

**** GROUP UPDATE ****

① J860, 861, 862 NSAB

② SH West Abandoned 1 Sept 83 ± 3 months

A wild guess, really but no birds were present
here during the winter.

(♂530, ♂756, ♀758, ♀NB[1874] ♀NB[1875])

14 June

Here 0830-930, ~~day~~ Again I see only the ♀NB,
and not the ♂.

**** GROUP UPDATE ****

① ♀NB⁽¹⁹⁰³⁾ ♂ (??) Founded SHW 1 May 1984
we will have to wait to see who the ♂ is.

1984

R. L. Mammé

1

Melanerpes formicivorusPoison Oak Hill

3 March Up here with Beth, 1600-1700 hrs. We find no acorns and no birds at PO #1. The granary had lots of acorn shells in it, but it was hard to tell if they were fall 82 acorns or fall 83 acorns. I suspect the former. At any rate, no evidence of anybody around. At PO #2, pretty much the same situation: No acorns, and no real sign of any activity. We sat down + watched + stuff for awhile, though, and one AW (sex + banding status unknown) cruised through the periphery, heading ~~Abb~~ in the general direction of PO #3 + #4. I suspect that that bird did not belong at #2, and that both PO #1 + PO #2 are abandoned, and have been since the fall.

1984 R.L. Mummé

1

Acorn Woodpecker-

ARF too

3/May Watching here, 0800 - 0930, at least 1 ♂ NB & ♀ NB are here. Both were seen carrying food (!), perhaps off toward the 83 nest hole. More work is needed here, however.

6 June

** GROUP UPDATE **

① J890, 891, 892, 893 NSAB

② ARF too ABANDONED 1 Sept 83 \pm 2 months

A guess, but ♂ NB, ♀ NB, ♂ 800 all here feeding young in early June. (♂ NB [1852], ♀ NB [1888], ♀ 687, ♀ 798, ♂ 800)

8 June

More work, 0700 - 0800: ARF too probably doesn't have a nest. Saw the ♂ NB fly to the "high" perch tree with food, then eat it himself. Had him in sight from 0715 - 0750, he did nothing except preen. No sign of a ♀ today.

14 June

** GROUP UPDATE **

① ¹⁹⁰⁴ ♀ NB, ¹⁹⁰⁵ ♂ NB Found ARFT 1 May 1984 \pm 1 month

1984 R.L. Mummie

Acorn Woodpecker

ARF

3 May

Heard birds hear on my way up to the Arnold.

31 May

I see at least 2 birds here while watching at ARF too

1984

R.L. Mumme

1

Acorn WoodpeckerBlack Oak4 April

0800, up here with Denise + Philip, a mini-power struggle going on at Black Oak. The situation is ① 4 unbanded birds (at least 2, probably 3 ♀♀, and 1 ♂) have control of the main granary area, and the perch trees to the west ② The eastern 2° granary is occupied by at least two ~~UA2~~ ♀♀ 778 + 779, plus the possibility of ♂915. They don't look all that dedicated, though. Also seen being chased from the 1° area was ♀568 of Al. Denise may have seen ♂736 from Sobo, + I may have seen ♂777 from Lambert. No acorns here, maximum of 9 birds ~~were~~ present and not much action.

15 April

Turmoil at Black Oak. 0700, a power struggle in progress ① 2 old Black Oak ♂♂ ^{M/Orange} ♂689 ^{Blk/or-wnt} and ♂426 ^{Blk/orange}, and 3 UA2 ♀♀ (♀778, 779, and ♀780 are waiting together in the 1° granary area. They seem to have firm control of the main storage ② Waiting together in the 2° area are ♂736 of Sobo, plus 3 ♀NB. They have loose control of the 2° area and the 1983 Poison Oak nest hole. At least 3 other independent NBs (1 ♂, 2 ♀?) are around, making a total of 12 (at least) birds here. I also saw what has to be old-timer ♂102 ^{NB/NB} Yellow/NB, a very ~~br~~-heavily mustached ♂. He and I think ♂321 + ♂691 were all in the 2° area briefly.

0811, confirm ♂102 yellow - in the 1° granary area with ♂426, ♂689, ♀778 779 780. He's not that active. I may have confused ♂736 for ♂321/691.

1984

R.L. Mumme

2

Acorn WoodpeckerBlack Oak25 April

Dawn! Up here 0815-0915, hoping to see the 3 ♀♀ from UA2 in control, I instead find 3 ♀NB walking with ♂426 + ♂102. ♂321 ^{or 10 Blue-rel (iv)} also

seen, but not ♂689 or ♂691. No intruders, things calm on a very windy day. Did see ♂102 take a peck at ♂426.

21 May

0700-0930, I find just 2 ♀NB (though the third may still be around) ♂102 yellow, ♂426, ♂321.

~~Black~~ One ♀NB was showing a bit of interest in the poison oak hole, but clearly, no nesting yet. The birds were also over at Bianca briefly.

6 June

** GROUP UPDATE **

① ♂743 disappeared 5 March 1983 ± 2 months

Last seen 14 Dec 1982, certainly gone by late May.

② Juvs 929, 930, 931 all NSAB

③ Black Oak Abandoned 20 Sept 1983 ± 1 month

Saw ♀741 there in passing on 23 Aug.

Birds certainly gone during Sandy's watches Oct-Nov.

(♂102, ♂426, ♂321, ♂497, ♂689, ♂691, ♀713

♀741, ♂742, ♂744, ♀829, ~~♂689~~ ♀680,

④ ♀505 returned to A1 10 July 83 ± 1 month

Back by 23 Aug, last at BO 26 May

14 June

⑦ 3 ♀NB (1906, 1907, 1908) Found BKOK 20 April 84

⑧ ♂426, ♂102, ♂321, ♂689 Found BKOK 20 April 84

1984 R.L. Mumme

Acorn Woodpecker

SORO

4 April A quick walk down here with Denise still a few acorns present in the granary, plus ♀⁶⁵⁸ LBlue-Black / LBlue.

6 June * * GROUP UPDATE * *

① ♀659 disappeared 25 May 83 ± 2 weeks
last seen - 7 May 83, missing 16 June

②

1984

R. C. Munne

1

Acorn Woodpecker

Arnold 16 June

** GROUP UPDATE **

① ♀505 returned to A1 10 July 83 \pm 1 month.

She was back here for sure 23 Aug.

② ~~♀505 disappeared~~ ♂679 disappeared 1 Nov 83 \pm 2 weeks

Last seen 17 Oct, gone by 15 Nov.

③ ♀761 disappeared 10 July 83 \pm 1 monthLast seen 26 May, ~~go~~ missing 23 Aug④ ♂762 disappeared 27 Dec 83 \pm 2 weeks

Last seen 10 Dec, gone by 17 Jan

⑤ ♂826, ♂827 disappeared 10 July 83 \pm 1 month

Last seen 26 May, missing 23 Aug

14 June⑥ ♂679 returned (to A1) 21 May 1984

1984

R. L. Munn

Acorn Woodpecker

Keep Out

6 June

~~Map~~ ** GROUP UPDATE **

① ♂ 705 disappeared 1 Nov 83 \pm 2 days

Last seen 25 Oct, gone 3 Nov

② ♀ 567 disappeared 1 Nov 83 \pm 2 days

Last seen 25 Oct, missing 3 Nov

③ J 901 disappeared 24 Aug 83 \pm 2 months

Last seen 24 June, missing 24 Oct.

♀ 900 last seen on ^{8 June} ~~25 April~~: ♂ 706 + ♂ 899

last seen on 1 March.

1984

R.L. Mumme

1

Melanerpes formicivorusLambert2 Jan

Up here on a beautiful warm day, 1430. Lambert does indeed seem to have been reoccupied by the old residents following the addition of ~1500 acorns. I flush two birds walking up, one of which is ^{m / Red-Yellow} ♀720 Red-Yellow / Red. Didn't get a look at the second bird, which exchanged wakas with ♀720. Still a decent number of acorns left in the granary.

10 March

0845: I flush 3 birds, then spot 4 perched together in the distance after setting up the blind here.

1100, after bailing out of the blind at 0930, I have a bit of luck: over by Bar-B-Q. I find ♀720 Red-Yellow / Red, and ♂624 ^{LBlue-Red / LBlue-Red} " " / " ". With them was a

♀NB, that was chased a bit by ♀720, but not much.

Earlier, while in the blind I saw a (the?) ♀NB chase somebody from the Lambert area. Also, one of the 4 birds I saw at a distance was a ♂ LGreen-Black/white, which probably was ♂546. Lambert is ranging all over the place: Saw ♂624 west of BBQ, well west of Keep Out later. Very few acorns remain in the granary at Lambert.

I also could find no stores in the BBQ granary, which has lost a lot of storage limbs since the last time I looked at it. In short, Lambert needs more work, but it will be difficult given how rarely they sit in the granary and how widely they range.

12 March

Good luck here today, 1045-1145. Down around Keep Out I find ♀720 and the long lost ♂777 ^{Black/White-LGreen}. I then flush ♀720 and ~~another~~ two other birds up toward BBQ, where

1984

R.L. Mummé

2

Acorn Woodpecker

Lambert

(12 March) I finally ID ♂546 (6m-DBue / m. As suspected by Sandy, ♂546 does indeed to have an injured left eye with dark iris. The right eye seems fine. No sighting of ♂624 today, but Lambert seems to contain 4 birds: ♂546, ♂624, ♀720, ♂777.

6 June

** GROUP UPDATE **

① Juvs 894, 895, 896 NSAB

② ♀775 disappeared 1 June 83 ± 1 week

Last seen - 23 May, missing 9 June

M. formicivorusFanny Arnold2 Jan

Here with Beth, 1300, looks like the situation described by Susan + Sandy is still in effect. 3 ♀♀ are here (♀834 Red/Blk-white, (♀796? M/Light-Dark?) and third ♀ L-D / M, presumably the one banded by Susan). All were quite conspicuous flycatching, occasionally moving acorns around + working stores. Also seen less conspicuously were two ♂♂, one of which was ♂681 Yellow/M of UA2. He was seen sitting on an acorn storage limb with ♀834, with the other two ♀♀. The other ♂ was seen only once, and bands were not seen, but it had a flat head and long bill similar to that of ♂123 of UA2. I suspect that these two ♂♂ are still shuttling back + forth from UA2 + FA. A third intruding ♂ (banded, but not identified) was here briefly as well, at which time all five birds rallied to the defense (all five residents seen simultaneously at that time).

12 March

At 0900, Philip + I release the 3 FA ♂♂ (♂835, ♂797, ♂940) back at Fanny Arnold. All 3 flew strongly to the granary area. Followed by wakas and a few chases, the details of which I could not ascertain. ♂940 may not actually belong here, as there was no indication of a ♂NB here before the ambush. He may be just a wayward rooster.

1030: Seems like it's over. The 3 ♂♂ seem to have been remembered by the ♀♀, and ♂681 seen hanging out on the periphery. Aviary ♂♂ seen eating catkins. Seems like it's all over. ^{See Philip's notes}

Acorn Woodpecker

Fanny Arnold6 June

** GROUP UPDATE

① ♀939 banded 7 Nov 1984

② ♂UB⁽⁹⁴⁰⁾ + ♂797 removed 7 Nov 1983

③ ♂835 removed 29 Nov 1983

④ ~~UB~~ ♂797, ♂835, ♂940 returned to FA12 March 198414 June⑤ ♀939 moves to LA2 1st April 84 ± 2 weeks

(Last at FA 17 March) First at LA2 15 April

1984 R.L. Mumme

Acorn Woodpecker

Upper Arnold 2

6 June ** GROUP UPDATE *

① ♂590 disappeared 15 Aug 1983 ± 3 months

Last seen 26 May 83, gone by 6 Nov 83

1984 R.C. Munne

Acorn Woodpecker

UA2 NEST RECORD

3 May Flush ♀ out of the low, opened hole in the 4-hole stub below the granary. 4 eggs, ~ 5-8 days old. First nest of 1984. Should check again ~ 1 week

18 May Checked the nest, 1800: 1 nestling, ~ 7 days old. Pretty poor. No trace of other eggs or young. Should band here 2 June

4 June NEST FAILED!

1 dead (fresh) ~~adult~~ nestling in nest, probably died 2-3 June. Very stunted development, gizzard full of stones + grit, but otherwise empty. Small peck holes on left flank.

1984 R.L. Mumme

Acorn Woodpecker

LA2

1 April

At least 4 birds plus acorns still remaining at Lower Arnold
2. I saw ♂611 and ♂~~600~~698, and Philip reported
♀783 and possibly a ♀NB

6 June

** GROUP UPDATE **

① ♀637 disappeared 5 Nov 1983 ± 1 week

Last seen 25 Oct, gone 15 Nov

② ♀647 disappeared 24 March 83 ± 2 weeks

Last seen 10 March 83, missing 6 April

③ ♂877, 878, 879 NSAB

14 June

④ ♀939 moves to LA2 1 April 84

1984 R.L. Mumme

Acorn Woodpecker

Bianca

4 April

Watching, 0900. Bianca was occupied (stored acorns present) during the fall, but now I'm not so sure.

A ♀ NB was poking in the granary when I started, but then a second bird ♂ or ♀ ^{Light / Light} M / Light, which could have been Q739 of SOBO, came in did the same, then flew off on a bee line toward SOBO.

0935, now 2 ♂ NB here poking in the granary. They fly off at 0940. Didn't look like they belonged here. Looks like Bianca may be abandoned & up for grabs. No acorns present here now.

15 April

At least 3, maybe 4 birds here at 0830

21 April

Black Oak birds here, Bianca still seems up for grabs

2033 33

♀752 being chased by ♂660

Melanerpes formicivorus

GRANARY ACTIVITY CENSUS

Group: Plaque

Date: 20 April 1984

Time: 1440 - 1640

Time	Activity
1 1440	♂723 ♂721 1° ♂660 2°
2 45	♂721 1°
3 50	♂721 ♂660 1°
4 55	♀752 ♂660 ♂721 2°
5 1500	♂521 2° ♂723 ♂721 1°
6 05	♂721 ♂723 1°
7 10	♂660 2° ♂723 ws 3° ♂721 EA ♂521 1°
8 15	♂521 3° ♂721 2° ♂723 1° ♂660 2°
9 20	nobody
10 25	nobody
11 30	"
12 35	"
13 40	"
14 45	"
15 50	"
16 55	"
17 1600	"
18 05	"
19 10	♂521 1°
20 15	♂521 ♂721 ♂660 1°
21 20	♂660 ♂721 2°
22 25	♂723 2°
23 30	♂723 EA 1° ♂721 ♂660 2°
24 35	♂660 1° EA, ♂721 1° ♂723 2°
25 40	♂660 ♂721 ♂723 1°

INTRUSIONS

Time Intruder Chased by Intensity Took acorns? Birds present/comments

1458	Starling	♂723	1	no	
1610	♂NB	♂721	2	tried	Nobody present for a long time

Total Intrusions: Intraspecific 2 | Interspecific 1
Total Defenses: Intraspecific 1 | Interspecific 1

Group: Plaque

Date: 21 April 1984

Time: 0850

Time	Activity
1 0850	♂ 721 1°
2 0855	♂ 521 WH 1° ♀ 752 ♂ 660 ♂ 721 1°
3 0900	♂ 521 WH 1° ♂ 721 ♀ 752 1°
4 05	♂ 521 ♀ 752 2° ♂ 721 1°
5 10	♀ 752 ♂ 721 1°
6 15	♂ 521 1° WH ♀ 752 2° ♂ 721 1°
7 20	♂ 521 WNH 1° ♀ 752 ♂ 721 1°
8 25	♂ 721 2°
9 30	♂ 721 1°
10 35	♂ 721 ♀ 752 2°
11 40	♂ 721 1° ♀ 752 2°
12 45	♂ 723 WS 3° ♂ 721 1°
13 50	♂ 521 30 WS ♂ 721 ♂ 723 ♀ 752 1°
14 55	♂ 521 ♀ 752 ♂ 723 2° ♂ 721 1°
15 1000	♂ 521 2° ♂ 721 WNH ♀ 752 1°
16 05	♂ 521 WNH 1° ♀ 752 ♂ 721 1°
17 10	♂ 721 2° ♀ 752 2°
18 15	♂ 721 ♂ 723 ♀ 752 2°
19 20	♂ 721 2000 ♀ 752 2° ♂ 723 1°
20 25	♂ 723 2° ♂ 521 ♂ 721 ♀ 752 1°
21 30	♂ 521 EA 1° ♀ 752 ♂ 723 2°
22 35	♂ 521 WNH ♂ 723 1° ♀ 752 2°
23 40	♂ 521 WNH ♂ 721 ♂ 723 1° ♀ 752 2°
24 45	♂ 521 WNH ♂ 721 ♀ 762 1° ♂ 723 1°
25 50	♂ 521 WNH ♂ 723 1° ♀ 752 ♂ 721 2°

INTRUSIONS

Time Intruder Chased by Intensity Took acorns? Birds present/comments

Total Intrusions: Intraspecific _____ Interspecific _____
Total Defenses: Intraspecific _____ Interspecific _____

Melanerpes formicivorus

GRANARY ACTIVITY CENSUS

Group: Road 1

Date: 20 April 1984

Time: 0835-1035

Time	Activity
1 0835	nobody
2 40	"
3 45	♂486 1° ♀383 2°
4 50	♀269 EA ♂486 ♀383 1°
5 55	♀269 1°
6 0900	♀269 1° ♂486 2°
7 05	♀269 1° ♂486 ♀383 2°
8 10	♀383 1°
9 15	♀269 1° ♂486 2°
10 20	♂486 ♀283 1°
11 25	♂486 ♀383 2°
12 30	nobody
13 35	"
14 40	♂486 2°
15 45	♀383 1°
16 50	nobody
17 55	♀383 1°
18 1000	nobody
19 05	nobody
20 10	♂486 1° ♀269 2°
21 15	nobody
22 20	♀383 1°
23 25	♀383 1°
24 30	♀383 1°
25 35	♀383 ♀269 WH 2°

INTRUSIONS

Time Intruder Chased by Intensity Took acorns? Birds present/comments

①	10905	AW?	♂486	1	no	♀383 present, NR
②	10120	♀NB	♀382	3	looked, didn't	long delay while gone, then vigorous chase
			♂486	1	fi-d-a-l	little response

Total Intrusions: Intraspecific 2 Interspecific 0
 Total Defenses: Intraspecific 3 Interspecific 0

Melanerpes formicivorus

GRANARY ACTIVITY CENSUS

Group: Road 1

Date: 21 April 1984

Time: 1430-1630

Time	Activity
1 1430	nobody
2 35	nobody
3 40	"
4 45	"
5 50	"
6 55	"
7 1500	"
8 05	♂486 WH 2°
9 10	♀269 WH 2° EA
10 15	nobody
11 20	"
12 25	"
13 30	"
14 35	"
15 40	♀269 1°
16 45	♂486 EA 2°
17 50	♂486 ♀269 ♀383 2°
18 55	♀383 WH ♀269 1°
19 1600	♀269 2° WH
20 05	♂486 1°
21 10	nobody
22 15	nobody
23 20	nobody
24 25	nobody
25 30	nobody

INTRUSIONS

Time Intruder Chased by Intensity Took acorns? Birds present/comments

Total Intrusions: Intraspecific _____ Interspecific _____
 Total Defenses: Intraspecific _____ Interspecific _____

Melanerpes formicivorus

GRANARY ACTIVITY CENSUS

Group: Road 1

Date: 30 April 1984

Time: 0625-0825

Time	Activity
1 0625	Nobody
2 30	"
3 35	♂486 ♀383 1°
4 40	♂486 ♀383 ♀269 1°
5 45	" " " "
6 50	" " " "
7 55	♂486 2° / ♀383 ♀269 1°
8 0700	♂486 WS ♀269 2° /
9 05	♀269 ♂486 WS ♀383 2°
10 10	♀269 ♀383 1° / ♂486 2°
11 15	♀269 ♀383 WS ♂486 1°
12 20	♀269 1° / ♂486 2°
13 25	nobody
14 30	"
15 35	"
16 40	♀269 WH 1°
17 45	nobody
18 50	♂486 2°
19 0755 55	♀269 WH 1°
20 0800	♀269 2°
21 05 11	♀269 ♀383 ♂486 1°
22 10 11	♀269 EA 1° / ♂486 2° / ♀383 1°
23 15 11	♀269 2°
24 20	♀269 1° ♀383 EA 1°
25 25	♀269 ♀383 1° ♂486 1°

INTRUSIONS

♀269 chattered twice to ♀383! Dom. reversal?

Time	Intruder	Chased by	Intensity	Took acorns?	Birds present/comments
0635	♂?	♂486	2	NO	♀383 hear
0645	AW?	♀?	2	NO	"
0655	♀NB	♀383	2	NO	♀269 near, NR
0700	♀NB	♀269	2	NO	—
0700	♀?AW	♀269	4	NO	—
0720	♂stirling	♀269	1	NO	—
0730	♀NB	♀269	2	NO	—
0740	♀NB	♀269	1	NO	—
0812	♂?	♂486	2	NO	—

Total Intrusions: Intraspecific _____ Interspecific _____
 Total Defenses: Intraspecific _____ Interspecific _____

Melanerpes formicivorus

GRANARY ACTIVITY CENSUS

Group: Road 1

Date: 4 May 1984

Time: 1245 - 1445

Time	Activity
1 1245	♀269 1° ♂486 2°
2 50	♀578 1°
3 55	♀269 EA ♀578 WH 2°
4 1300	nobody
5 05	♂486 ♀269 1°
6 10	♀269 WH 1°
7 15	♂486 1°
8 20	nobody
9 25	"
10 30	♀578 2°
11 35	♀578 ♂486 1°
12 40	nobody
13 45	"
14 50	"
15 55	♀383 2°
16 1400	nobody
17 05	♂486 1° ♀383 2°
18 10	♀383 1°
19 15	♂486 ♀383 1°
20 20	♀383 1°
21 25	♂486 2°
22 30	♀578 1°
23 35	♀269 1°
24 40	♂486 ♀269 ♀383 ♀578 1°
25 45	♀578 ♂486 1° ♀383 1°

INTRUSIONS

Time	Intruder	Chased by	Intensity	Took acorns?	Birds present/comments
1415	AW?	♀383	2	no	♂486 NR

Total Intrusions: Intraspecific _____ Interspecific _____
 Total Defenses: Intraspecific _____ Interspecific _____

Melanerpes formicivorus

GRANARY ACTIVITY CENSUS

Group: Plaque

Date: 1 May 1984

Time: 0700-0900

Time	Activity
1 0700	♀752 1°
2 05	♀752 1° ♂723 2°
3 10	♂723 1°
4 15	♂723 1°
5 20	♀752 ♂723 1°
6 25	♀752 1° ♂723 2°
7 30	♂521 ♂660 1° ♂723 1° ♀752 2°
8 35	♂521 1° ♂723 2°
9 40	♂521 ♂660 1° ♂723 2°
10 45	♀752 ♂723 1° ♂660 2° ♂521 1°
11 50	♂660 WS 1°
12 55	♀752 ♂721 1°
13 0800	♂721 ♂660 1°
14 05	♂521 2° ♂660 EA 1°
15 10	♂521 ♂660 1° (♂660 flew off toward Pipe Line)
16 15	♂723 1°
17 20	♂723 2° ♀752 1°
18 25	nobody
19 30	nobody
20 35	♀7
21 40	♀752 ♂723 1°
22 45	♀752 ♂723 1°
23 50	♂723 1°
24 55	♂723 1°
25 0900	♂723 ♂521 ♀752 1°

INTRUSIONS

Time Intruder Chased by Intensity Took acorns? Birds present/comments

0808	Nuthatch	—	○	no	♂723 near

Total Intrusions: Intraspecific _____ Interspecific _____
 Total Defenses: Intraspecific _____ Interspecific _____

